## 25<sup>th</sup> MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

Introduction

Case

**Winning Memorials** 





# The 2016 Manfred Lachs Space Law Moot Court Competition

Case Concerning Space Debris, Commercial Spaceflight Services and Liability (Banché v. Rastalia)

Melissa K. Force\*

#### **PART A: INTRODUCTION**

The 25<sup>th</sup> Manfred Lachs Space Law Moot Court Finals were held 29 September, 2016 at the Paraninfo Enrique Diaz de León, University of Guadalajara, in Guadalajara, Mexico. The winners of the two semi-finals argued the 2016 Moot Court Problem, Case Concerning Space Debris, Commercial Spaceflight Services and Liability (Banche v. Rastalia), authored by Prof. Yun Zhao (China). The arguments were judged by Her Excellency Judge Xue Hanqin, His Excellency Judge Peter Tomka and His Excellency Judge Kirill Gevorgian of the International Court of Justice.

After an impressive round of oral pleadings between the finalists, the judges declared the National and Kapodistrian University of Athens, Greece victors of the World Final of the Manfred Lachs Space Law Moot Court Competition and recipient of the Lee Love Award for Best Team. The judges also awarded the Sterns and Tennen Award for Best Oralist to Ms. Filareti Filaretou-Kouimtzi, from the National and Kapodistrian University. The Eilene Galloway Award for Best Memorials was awarded to McGill University, Institute of Air and Space Law, Montreal, Quebec, Canada.

In all, 66 teams competed in the 2016 regional competitions, including new entries from Iran and Mexico. The Asia Pacific Regional took place 5-8 May 2016 among 20 selected teams (among 26 who competed with memorial submissions) representing Australia, China, India, Indonesia, Iran, Nepal,

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and Singapore. The winner was Curtin University (Australia), comprised of Rachel O'Meara, Jocelyn Watts, Ricardo Napper and Faculty Advisor Prof. Dr. Vernon Nase.

The African regional was held 26-27 May, 2016 among 5 teams from Kenya, Uganda, South Africa and Nigeria. The Winner was the Obafemi Awolowo University of Nigeria, comprised of Philips Timilehin Adekemi, Toluwalope Oluwatobi Dada, Irene Inemesit Ekord and their Faculty Advisor Dr. Odunola Akinwale Orifowomo.

The North America regional competition took place 1-2 April, 2016 among 12 teams, including one team from Mexico. The winner was the team from McGill Institute of Air & Space Law, comprised of Aram Daniel Kerkonian, Julius Dunton, Ted Adam Newsome and Faculty Advisor Maria Manoli.

The European regional competition took place 27-29 April, 2016 among 23 teams from Austria, Finland, Germany, Greece, Italy, Luxembourg, Netherlands, Poland, Romania, Serbia and the United Kingdom. The winner was the team from National & Kapodistrian University of Athens, comprised of Georgia-Eleni Exarchou, Filareti Filaretou-Kouimtzi, Sofia Stellatou and their advisor, George Kyrialopoulos and assistant advisor, Georgia-Maria Kalogirou.

Two semi-final matches were held simultaneously on 27 September, 2016. Session one of the semi-finals was between McGill University (Canada) and Obafemi Awolowo University (Nigeria) and was judged by Prof. Yun Zhao, President of Panel, Prof. Dr. Lesley Jane Smith and Prof. Sergio Marchisio. The winner of session one was Obafemi Awolowo University of Nigeria. Session two of the semi-finals was between National and Kapodistrian University of Athens (Greece) and Curtin University (Australia) and was judged by Dr. Milton (Skip) Smith, President of Panel, Dr. Ulrike Bohlman and Mr. Dennis Burnett. The winner of session two was the National and Kapodistrian University of Athens.

Memorials were judged by Dr. Michael Chatzipanagiotis (Greece), Dr. Philip De Man (Belgium), Ms. Icho Kealotswe (Botswana), Prof. Dr. Li Shouping (China), Mr. Maury J. Mechanick, Esq. (United States), Ms. Sherlene Monogamy (South Africa), Ms. Marcia Smith (United States), and Dr. Yuri Takaya-Umehara (Japan).

After an impressive round of oral pleadings between the two finalists, the three ICJ Judges (Judges Xue Hanqin, Peter Tomka and Kirill Gevorgian) declared the National and Kapodistrian University of Athens, Greece victors of the World Final of the Manfred Lachs Space Law Moot Court Competition and recipient of the Lee Love Award for Best Team. The judges also awarded the Sterns and Tennen Award for Best Oralist to Ms. Filareti Filaretou-Kouimtzi, from the National and Kapodistrian University. The Eilene Galloway Award for Best Memorials was awarded to McGill University, Institute of Air and Space Law, Montreal, Quebec, Canada.

#### **Participants in the African Regional Rounds:**

- Makere University, Kampala, Uganda
- Mount Kenya University, Thika, Kenya
- Niger Delta University, Wilberforce Island, Nigeria
- Obafemi Awolowo University, City of Ile-Ife, Nigeria
- University of Pretoria, Faculty of Law, Pretoria, South Africa

#### **Participants in the European Regional Rounds:**

- Faculty of Law, University of Cologne, Cologne, Germany
- International Institute of Air and Space Law, Leiden University, Leiden, The Netherlands
- John Paul II Catholic University of Lublin, Lublin, Poland
- Leuphana University, Lüneburg, Germany
- National & Kapodistrian University, Athens, Greece
- National University of Technical and Administrative Sciences, Bucharest, Romania
- Union University Law School, Belgrade, Serbia
- University of Bucharest, Bucharest, Romania
- University of Edinburgh, Edinburgh, United Kingdom
- University of Genoa, Genoa, Italy
- University of Helsinki (Law), Helsinki, Finland
- University of Hertfordshire, Hatfield, United Kingdom
- University of Lodz (Law and Administration), Lodz, Poland
- University of Luxembourg, Luxembourg, Luxembourg
- University of Strathclyde, Glasgow, United Kingdom
- University of Vienna, Vienna, Austria
- University of Warsaw, Warsaw, Poland

#### **Participants in the North American Regional Rounds:**

- Florida State University College of Law, Tallahassee, Florida, USA
- Georgetown University Law Center, Washington D.C., USA
- George Washington University, Washington D.C., USA
- McGill University, Institute of Air and Space Law, Montreal, Quebec, Canada
- St. Thomas University School of Law, Miami, Florida, USA
- University of Hawaii, William S. Richardson School of Law, Honolulu, Hawaii, USA
- University of Mississippi, School of Law, Oxford, Mississippi, USA
- Universidad Nacional Autonoma de Mexico (UNAM), Mexico City, Mexico
- University of Nebraska College of Law, Lincoln, Nebraska, USA
- University of Nevada Las Vegas, Las Vegas, Nevada, USA

#### PROCEEDINGS OF THE INTERNATIONAL INSTITUTE OF SPACE LAW 2016

- University of Ottawa, Ottawa, Ontario, Canada
- University of Washington, Seattle, Washington, USA

#### Participants in the Asia Pacific Regional Rounds:

- Adelaide Law School, University of Adelaide, Adelaide, Australia
- Aerospace Research Institute of the Ministry of Science, Research & Technology, Teheran, I.R. of Iran
- China University of Political Science and Law (CUPL), Beijing, China
- Christ University, Bangalore, India
- College of Legal Studies, University of Petroleum and Energy Studies (UPES), Dehradun, India
- Curtin University, Perth, Australia
- Gujarat National Law University, Gandhinagar, India
- Indian Law Society Law College (ILS), Pune, India
- IFIM Law College, Bangalore, India
- Kathmandu School of Law, Purbanchal University, Kathmandu, Nepal
- M.S. Ramaiah College of Law, Bangalore, India
- National Law Institute University, Bhopal, India
- National Law School of India University (NLSIU), Bangalore, India
- National Law University, Delhi, India
- National Law University, Odisha, Cuttack, India
- National University of Advanced Legal Studies (NUALS), Kochi, India
- National University of Singapore, Singapore
- National Law University, Jodhpur, India
- School of Excellence in Law, The Tamil Nadu Dr. Ambedkar Law University, Chennai, India
- School of Law, Raffles University, Neemrana, India
- Symbiosis Law, India School, Pune, India
- Tamil Nadu National Law School, Trichy, India
- Universitas Islam Indonesia, Yogyakarta, Indonesia
- Universitas Katolik Parahyangan, Bandung, Indonesia
- West Bengal National University of Juridical Sciences, Kolkata, India
- Vivekananda Institute of Professional Studies, New Delhi, India

#### Participants in the Final Rounds:

- National and Kapodistrian University of Athens, Greece
  - o Georgia-Eleni Exarchou
  - o Filareti Filaretou-Kouimtzi
  - o Sofia Stellatou
  - o Advisor, George Kyriakopoulos
  - o Assistant advisor, Georgia-Maria Kalogirou

#### THE 2016 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

- Obafemi Awolowo University of Nigeria
  - o Philips Timilehin Adekemi
  - o Toluwalope Oluwatobi Dada
  - o Irene Inemesit Ekord
  - o Faculty Advisor, Dr. Odunola Akinwale Orifowomo.

#### **Awards:**

- Lee Love Award for Best Team: National and Kapodistrian University of Athens, Greece
- Sterns and Tennen Award for Best Oralist: Ms. Filareti Filaretou-Kouimtzi, from the National and Kapodistrian University
- Eilene Galloway Award for Best Memorials: McGill University, Institute of Air and Space Law, Montreal, Quebec, Canada (Aram Daniel Kerkonian, Julius Dunton, Ted Adam Newsome)

#### **Judges of the Final Round:**

- His Excellency Judge Peter Tomka, International Court of Justice
- Her Excellency Judge Xue Hangin, International Court of Justice
- His Excellency Judge Kirill Gevorgian, International Court of Justice

#### **Sponsors of the Regional Teams:**

- Sponsors of North American Team: NASA, Secure World Foundation
- Sponsor of European Team: European Centre for Space Law
- Sponsor of Asia Pacific Team: Japan Aerospace Exploration Agency (JAXA)
- Sponsor of African Team: Department of Trade and Industry, Republic of South Africa and Obafemi Awolowo University

#### **Sponsors of the Finals:**

- Brill Nijhoff Publishers
- Eleven International Publishing
- European Space Agency (ESA)
- Excalibur Almaz
- Heinlein Prize
- International Astronautical Federation
- International Court of Justice
- Moon Express
- South African Space Association
- Springer Publishing Company
- University of Guadalajara

#### PART B: THE PROBLEM

#### **Agreed Statement of Facts:**

- 1. The Republic of Banché is a highly developed country with a 2000-kilometer coastline. It has a long history and technical expertise in space exploration and exploitation. Its state-owned space station, Mira, placed in a north-south polar orbit, has been operating for nearly ten years since October 1<sup>st</sup>, 2020. On June 1<sup>st</sup>, 2021, Banché initiated a long-term national program "Open the Gateway for Mankind" to encourage its domestic private enterprises to provide private commercial spaceflight services in the international market.
- 2. The Republic of Rastalia is a landlocked state with rich natural resources. Its southern plain area is densely-populated. Its north is mountainous and sparsely-populated. A developing country with a high annual GDP growth rate, Rastalia set up a national plan for space entitled "Beyond the Earth's Surface" in early 2024. The plan's initial goals were to focus on making extensive use of satellite technologies for various purposes and expanding the satellite market.
- 3. Banché and Rastalia are neighboring countries with an 800-kilometer contiguously shared border. Though historically, dating back centuries, there have been hostilities because of border issues, their relationship has improved by a series of cooperative projects in various fields during recent years. They are both Member States of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) and actively take part in the discussions of COPUOS working groups concerning the space legal and technical issues.
- 4. Banché considers Rastalia as a significant rival in the commercial space marketplace and maintains strict export controls over high technologies against Rastalia. It considers Rastalia as a potential national security threat. The Banché Congress enacted the Export Control Act on February 1st, 2026, which stipulated strict national license controls over nuclear materials, nuclear reactors and laser technology. In addition, a special order was issued to prohibit governmental space cooperation between the two states, i.e. the Banché government shall not cooperate in any way with Rastalia or Rastalia-owned companies in any space program.
- 5. Jardon Tech. Co. Ltd. ("Jardon"), a satellite company, was founded and registered in Rastalia in 2023. Soon after Rastalia initiated the Satellite Commercialization Development (SCD) project in 2026, Jardon received the authorization certificate to conduct commercial launching services from Rastalian government facilities pursuant to its National Space Commercial Launching Act (2016). Jardon became the major enterprise appointed by the Rastalian government to undertake the SCD project.
- 6. On January 20th, 2027, as part of the SCD project, Rastalia announced plans to launch three satellites (Lavotto-series) within three years. The

- main functions of the satellites developed as part of this project are commercial telecommunications, disaster monitoring, and medical data relaying services for rural and remote areas where conventional communications or other services are not available.
- 7. On January 15<sup>th</sup>, 2028, Jardon launched the first scientific satellite (Lavotto-1) from Rastalian territory. This satellite was placed in low Earth orbit (LEO), an elliptical orbit with a nominal average altitude of 600 kilometers. Lavotto-1 had an in-orbit dimension of 3.25 meters (10.6 feet) × 0.6 meter (2 feet) × 0.3 meter (1 feet) and a mass of 950 kilograms. The major structural material of Lavotto-1 was the latest composite research achievement of Jardon. Lavotto-1 marked the first operational use of the material which had not previously been launched into outer space. For end-of-life mission planning purposes, the satellite was equipped with a capability either to de-orbit or to be maneuvered to a so-called "parking orbit". Rastalia registered the "Lavotto-1" satellite both in a national register within one month after the launch and with the UN two months after the launch.
- 8. On May 18th, 2028, four months after achieving full operational capability, Lavotto-1 suddenly ceased most of its functions (including the de-orbit capability) because of a rare solar windstorm. Jardon immediately reported this failure to the Rastalian government and predicted that there was still the possibility to maneuver the barely functional satellite to a higher parking orbit. Rastalia's State Department spokesman held a press conference to announce this incident to the international community and indicated that Jardon was endeavoring to repair the propulsion system of the satellite to boost it into an orbit which would not pose a threat to the other space traffic, and protect the space environment by reducing risks of on-orbit collision.
- 9. On May 25<sup>th</sup>, 2028, the Rastalian government announced that Jardon was unable to boost Lavotto-1 towards the expected parking orbit because the satellite power and thermal systems damaged by the solar storm had failed during the orbit-altering maneuver. After the failure of Jardon's attempt to alter Lavotto-1's orbit, Jardon reported to Rastalia that the uncontrolled Lavotto-1 would pose a collision hazard to the Mira Space Station, which was at the same or slightly lower altitude to the Lavotto-1. Rastalia confirmed these findings and held a press conference where it reported that the collision probability would be greater if there was an attempt to use another Rastalian spacecraft to capture the satellite and deorbit it because the Lavotto-1 was too fragile for such a mission.
- 10. The country of Mosolia describes itself as a permanently neutral state. It is highly advanced in space technologies. Its Moso Space Traffic Monitoring and Awareness Center (Moso Center) kept close track of Lavotto-1 before and after the malfunction. Rastalia does not have diplomatic relations with

Mosolia. On May 28<sup>th</sup>, 2028, the Moso Center reported that it was the rare solar windstorm that led to the malfunction of Lavotto-1 and confirmed Rastalia's own report of the spacecraft's collision risks to the Mira Space Station to the international community. With the several announcements from Rastalia and Moso, Banché immediately set up its own panel to investigate the potential hazards and collision threats to its space station; the panel reported its findings on June 15<sup>th</sup>, 2028, which revealed that the conjunction of Lavotto-1's and Mira's orbits was within 2 kilometers in LEO and there was a significant probability that Mira would suffer a catastrophic collision with Lavotto-1.

- 11. During the next several weeks, Banché and Rastalia conducted discussions through diplomatic channels. On July 30th, 2028, Rastalia announced that "Rastalia is unable to resolve the malfunction of Lavotto-1 and declares that the spacecraft is a derelict object." Later that day the Banché defense minister held a press conference and announced, "The Banché government considers the Lavotto-1 satellite to be abandoned and Banché will physically remove Lavotto-1 from its current orbit with the latest advanced robotic seizing and removing technologies, which will be implemented as part of its upcoming manned space flight."
- 12. Solare Travel Services Ltd. ("Solare"), a company registered in Mosolia, has its principal office in Banché. Solare successfully qualified the spacecraft Couleur for commercial spaceflight services in early February 2025 after several successful trial flights launched from the Banché spaceport. On July 1st, 2028, Solare shortlisted two persons through selection (a Mosolian citizen named Ms. Erin Paula and a Rastalian citizen named Mr. Andrew James) among a number of applicants for its debut launch, with a Banché astronaut named Mr. Mario Borsch as Couleur's commander.
- 13. Ms. Paula is a well-known Mosolian scientist, who won its National Science and Technology Award in 2026. The Mosolian government provided full funding for her to take Couleur's first space trip. Mr. James is the CEO of Rastalia's largest oil company "Oxpeck" and he paid for the space ride himself; Couleur's commander, Mr. Borsch, formerly worked in the Ministry of National Defense of Banché during 2016-2021, serving as chief program director and engineer in charge of Banché's Anti-satellite Weapons (ASAT) project.
- 14. On August 1<sup>st</sup>, 2028, the Banché government signed a contract with Solare, which stipulated that Solare's spacecraft Couleur take up the job to remove Lavotto-1 from its current orbit using the latest robotic seizing and removing technologies to be provided by the Banché Space Agency. Solare was also contracted to provide for the launching services of two Banché satellites in 2029.
- 15. On January 1<sup>st</sup>, 2029, Couleur was launched from the Banché spaceport and successfully rendezvoused with Lavotto-1. On January 3<sup>rd</sup>, 2029,

Couleur's commander, Mr. Borsch, started to operate the satellite removing system which consisted of a grappling arm. However, during the grappling process, the Lavotto-1's composite structural material did not withstand the grappling and the satellite broke into two segments. Only one of the segments could be captured by Couleur's grappling arm and deorbited. The other piece of Lavotto-1 remained in orbit, and posed collision risks to Mira and Couleur and to other space objects in or intersecting the same orbit. After the structural failure, on the same day, after consulting the flight control center on the ground, Commander Borsch decided to activate the Global-Orbiting Deflection Apparatus (GODA) 2 Laser Satellite Removal System which was equipped by the Banché Ministry of National Defense in the Couleur before its launch. 2 GODA is a directed energy continuous wave (CW) laser. As designed for use by Couleur, the laser was intended to cause a slight adjustment in the orbit of a target satellite, which would increase drag and ultimately result in the spacecraft re-entering the atmosphere and burning up.

- 16. On January 4<sup>th</sup>, 2029, GODA fired a continuous beam on the remaining piece of Lavotto-1. Station keeping thruster propellant still on-board Lavotto-1 exploded which resulted in a cascade of debris fragments. Several minutes later, Couleur was struck by a debris fragment, which seriously damaged the normal functioning of Couleur's communications and flight control systems, leaving only limited and intermittent communications ability and reduced maneuverability of the spacecraft. Commander Borsch decided to make an urgent landing at the Banché spaceport with the permission from Solare.
- 17. The Couleur, due to the damage to its key communications apparatus, was unable to achieve the correct orientation and failed to land at the Banché spaceport. Without sufficient ability to communicate with the ground control center, Commander Borsch decided to land in the territory of Rastalia and was able to successfully touch down beside Lake Taipo, a major Rastalian tourist destination in the south. During the landing process, a piece of spacecraft shell, damaged by the debris collision, detached and hit a campsite near Lake Taipo, completely destroying the buildings near the lake and causing the death of a Rastalian, Mr. Dave Thomas, who was on holiday with his daughter Wendy. On January 6<sup>th</sup>, 2029, Banché issued a diplomatic note to Rastalia and formally demanded the immediate return of the Couleur spacecraft, Commander Borsch, and Ms. Paula.
- 18. A Rastalian Rescue and Recovery Team located and reached the landing site of Couleur within 18 hours after its de-orbit. In the interim, the Rastalian Foreign Minister issued a formal statement that the Rastalian Government strongly condemned the GODA Laser as a weapon of mass destruction, and its belief that such device must have been powered by nuclear materials. Therefore, the Rastalian Government ordered the

- evacuation of all persons within a 300 kilometer radius of Lake Taipo. The rescue and recovery team found that Couleur's passenger cabin was relatively intact although the remainder of the craft was severely damaged. The three persons in the cabin were successfully rescued and sent to the hospital for medical treatment. The Couleur spacecraft was tested and no nuclear radiation leak was detected. One month later, the evacuation order for Lake Taipo was lifted.
- 19. On January 11th, 2029, in response to Banché's diplomatic note, the Rastalian Foreign Ministry spokesman announced that Mr. James would be sent to the Rastalian National Hospital for further health recovery. She also announced that the unscheduled landing also caused the death of another Rastalian citizen, Mr. Barton, who was under the flight path and suffered a fatal heart attack while witnessing the Couleur pass overhead. In addition, she stated that the Couleur GODA Laser system was an illegal weapon, and that Rastalia had the right to fully examine the spacecraft no matter how long it took to complete that process. Further, Commander Borsch would be held pending criminal charges, and Ms. Paula would be returned to Banché after Banché reimbursed Rastalia for the costs and damages incurred as a result of Couleur's illegal acts, including costs of recovery of the spacecraft, rescue costs and medical expenses for the personnel of the spacecraft, the costs of the evacuation of Lake Taipo, and the deaths of Rastalians, including both Mr. Thomas and Mr. Barton.
- 20. On January 12<sup>th</sup>, 2029, the Mosolian press published a declaration signed by Commander Borsch, which was leaked to the Mosolian press. In the declaration, Commander Borsch asked for political asylum in Rastalia and refused to be sent back to Banché, but did not give any reasons. Banché insisted on the return of Commander Borsch, and claimed that he was being held illegally for his knowledge of sensitive technologies and information acquired during his service in the Banché Ministry of National Defense.
- 21. On January 20<sup>th</sup>, 2029, the Banché President made an announcement which condemned Rastalia's detention of Couleur's commander as a violation of international law, and she demanded his return without any precondition.
- 22. On February 10<sup>th</sup>, 2029, Mosolia's domestic privately owned newspaper International Reference News Observation (IRNO), reported that a Banché investigation concluded that after Couleur's landing, Ms. Megan, a representative of the Rastalian National Defense Department, secretly negotiated with Commander Borsch, and promised to drop all criminal investigations and to provide him with a key position in the Rastalian Space Research Institute (RSRI) with lucrative rewards. IRNO further reported that Commander Borsch accepted the offer and signed an internal confidential agreement with RSRI, which listed the core space-related technologies he was to develop for Rastalia's National Defense

- Department, including nuclear power systems, spacecraft navigation systems and laser ASAT systems.
- 23. After several months, following diplomatic negotiations, Rastalia released Ms. Paula to Banché. Negotiations for the return of Commander Borsch and the Couleur spacecraft were unsuccessful, and both remain in Rastalia.
- 24. Banché initiated these proceedings by Application to the International Court of Justice. Rastalia accepted the jurisdiction of the Court, and the parties submitted this Agreed Statement of Facts. There is no issue of jurisdiction before the Court.

25.

- (1) Banché requests the Court to adjudge and declare that:
  - a. Rastalia violated international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché.
  - b. Rastalia is liable under international law for the damage to Couleur.
  - c. Banché is not liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton.
- (2) Rastalia requests the Court to adjudge and declare that:
  - a. Rastalia acted in conformity with international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché.
  - b. Rastalia is not liable under international law for the damage to Couleur.
  - c. Banché is liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton.
- 26. Both Banché and Rastalia are Member States of the United Nations, States Parties to the 1967 Outer Space Treaty, the 1968 Return and Rescue Agreement, the 1969 Vienna Convention on the Law of Treaties, the 1972 Liability Convention, and the 1975 Registration Convention.

#### **Problem Clarifications**

- 1. Do official records show that Commander Borsch requested political asylum from Rastalia?
  - Response: Further clarification is declined
- 2. What is the area of lake Taipo and/or its surrounding areas?
  - Response: Further clarification is declined
- 3. At any point, was sensitive information about Lavotto-1 (the composite structural material and left over fuel) discussed between Rastalia and Banché and could Banché have performed a collision avoidance manoeuvre on MIRA?

Response: Further clarification is declined

4. Who was the authority consulted by Commander Borsch before firing the GODA and what communications, if any, did Banché have with Rastalia confirming the actual presence or absence of a nuclear power source in the GODA?

Response: Further clarification is declined

5. Is IRNO recognized by Banche and Rastalia as a credible source of information?

Response: Further clarification is declined

6. Is 'Disaster Management' confined to Earth alone? (Para 6)

Response: Further clarification is declined

7. What is the exact nature/type of solar storm? **Response:** Further clarification is declined

8. Are Jardon Tech. Co. Ltd. and Solare Travel Services Ld. public or private companies?

Response: They are private companies.

9. Did the remaining piece of Lavotto-1 pose a greater collision risk to the Mira Space Station, Couleur and other space objects or was the collision risk the same as before the satellite removing system was employed?

Response: Further clarification is declined

10. Prior to the attempted removal of Lavotto-1 from its orbit, was Banché aware of Lavotto-1's properties, i.e. (a) the resistance of the composite structural material and (b) the existence of the propellant on-board?

Response: Further clarification is declined

11. Were the Mira space station and the Couleur spacecraft registered with the UN by Banché?

**Response:** They were registered strictly in compliance with the Registration Convention.

12. Was the Mira space station manned or unmanned?

Response: It is manned.

13. Were there any other space objects in the lower Earth orbit that were damaged by the solar wind storm?

Response: Further clarification is declined

14. Was the decision to activate the GODA system taken without consultation of the Rastalian government, and was the Rastalian government unaware of the existence of such device prior to its use during the recovery mission?

**Response:** The decision was taken without consultation of the Rastalian government; the Rastalian government was unware of the existence of such device prior to its use during the recovery mission.

15. What is the exact meaning of the word "rare" in paragraph 8 (solar windstorm), rare in frequency or rare in intensity?

Response: Further clarification is declined

16. Was there any reaction on behalf of Rastalia to the declaration signed by Commander Borsch requesting political asylum, which was leaked to the Mosolian press and published by it?

Response: Further clarification is declined

17. Did the Rastalia government make any notifications towards the Banché government, UN Secretary-General or a public announcement with regard to the emergency landing in its territory?

Response: Further clarification is declined

18. Was the spacecraft Couleur and its crew members the only solution for removing Lavotto-1 and were there any other possibilities taken into consideration by Banché?

Response: Further clarification is declined

19. What is the nature of the special order (paragraph 4) which was issued by Banché (as it seems from the facts it is part of the national legislation, however it is not entirely clear whether this order is of public nature and easily accessible to everyone or whether it is of internal nature and therefore not accessible to the public)?

Response: It is part of the national legislation.

20. Which State or non-governmental entity was operating or controlling the flight control center on the ground discussed in paragraph 15?
Response: Banché is the State operating or controlling the flight control center.

21. Was the Mira Space Station maneuverable and if so, by whom? **Response:** Further clarification is declined

22. Does the Global-Orbiting Deflection Apparatus (GODA) or other Laser Satellite Removal Systems require the use of nuclear power?

Response: Further clarification is declined

23. What were the specific protocols and strategies utilized by Jardon in its attempt to alter Lavotto-1's orbit? That is, did the attempt follow customary orbit alteration procedures?

Response: Further clarification is declined

24. What treaties are Mosolia a State Party to? Response: Further clarification is declined

25. Has Rastalia or Banché signed or ratified the International Convention on Salvage?

Response: Further clarification is declined

26. The second (2<sup>nd</sup>) line of section #16 reads, "Station keeping thruster propellant still on-board Lavotto-1 exploded..." Please clarify whether any words intended to be in this sentence are missing.

Response: No.

27. Is the GODA laser a nuclear-powered device? **Response:** Further clarification is declined

28. Whether Mr. Thomas's death was caused by debris from the shell of the ship or the collapse of the building.

Response: It was caused by the collapse of the building.

29. In which scientific field did Ms. Paula win the national science and technology award for?

Response: Further clarification is declined

#### **PART C: BEST MEMORIALS**

McGill Institute of Air & Space Law Aram Daniel Kerkonian, Julius Dunton, Ted Adam Newsome Faculty Advisor Maria Manoli.

- 1. Argument of Applicant, the Republic of Banché
- I. The Republic of Rastalia, Respondent, Did Violate International Law by Refusing to Return Couleur, Commander Borsch, and the Earlier Return of Ms. Paula to the Republic of Banché, Applicant.

Respondent's refusal to return the Couleur spacecraft, Borsch and Paula, despite Applicant's explicit demand, is a violation of (a) Articles 4 and 5 of the Rescue Agreement of 1968,<sup>1</sup> and (b) Articles V and VIII of the Outer Space Treaty of 1967.<sup>2</sup> According to Article 38 of this Court's statute, treaty obligations are a primary source of international law<sup>3</sup> and are legally binding upon the parties to the treaty.<sup>4</sup> As a State Party to the Rescue Agreement and the OST,<sup>5</sup> Respondent is required to adhere to their provisions in good faith, as per the principle of *pacta sunt servanda*.<sup>6</sup>

<sup>1</sup> Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space, Apr. 22, 1968, 672 U.N.T.S. 119 [hereinafter Rescue Agreement].

<sup>2</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the moon and other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205, arts. V, VIII [hereinafter Outer Space Treaty or OST].

<sup>3</sup> Statute of the International Court of Justice, Jun. 26, 1945, 33 U.N.T.S. 993 [hereinafter ICJ Statute] art. 38(1); Continental Shelf (Tunis v. Libya), I.C.J. 18, 38 (Feb. 24).

<sup>4</sup> Nuclear Tests (Aust. v. Fr.), 1974 I.C.J. 253, 268 (Dec. 20) [hereinafter Nuclear Tests]; Vladimir Kopal, *United Nations and the Progressive Development of International Space Law*, 7 FIN. Y.B. INT'L L 1, 3 (1996).

<sup>5</sup> Compromis, ¶26.

<sup>6</sup> Nuclear Tests, at 253, 268; Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 311 [hereinafter VCLT], art 26.

#### A. Respondent Violated Articles 4 and 5 of the Rescue Agreement

### 1. Respondent violated Article 4 by not promptly returning Paula and not returning Borsch to Applicant

As described in its Preamble, the purpose of the Rescue Agreement is to further develop and solidify the legal obligations set forth in the OST regarding the launch of astronauts and space objects into outer space.<sup>7</sup> This development is "prompted by sentiments of humanity."

Article 4 of the Rescue Agreement states "if owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party..., they shall be safely and promptly returned to representatives of the launching authority." Accordingly, the application of this article requires that: (i) the spacecraft must have landed in the territory of a Contracting Party due to accident, distress, emergency or unintended landing; (ii) the persons on board the spacecraft must be "personnel"; and (iii) the entity seeking return of the personnel is the launching authority. When these conditions are met, the recovering State has an unequivocal obligation to return the personnel to the launching authority. Accordingly, Respondent violated Article 4 and acted in breach of its obligations under the treaty by failing to (iv) promptly return Paula and (v) by failing to return Borsch.

### i) Accident and distress caused Paula and Borsch to have an emergency landing in Rastalia

While Article 4 of the Rescue Agreement does not define accident, distress, emergency, or unintentional, Article 31 of the VCLT directs the Court to interpret those words "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose." Recognizing that the preamble establishes the humanitarian nature of the Rescue Agreement, <sup>12</sup> any landing that requires outside assistance is covered. As such, the Couleur landing was a result of accident, distress or emergency as a debris fragment struck Couleur damaging

<sup>7</sup> Rescue Agreement, preamble; VCLT, art. 31.2.

<sup>8</sup> Ibid.

<sup>9</sup> Rescue Agreement, art. 4.

Manfred Lachs, Law of Outer Space: An Experience in Contemporary Law-Making 78 (Nijhoff Publishers, 2010) (1972) [hereinafter Lachs, Law of Outer Space].

<sup>11</sup> VCLT, art. 31(1).

<sup>12</sup> Concerning the priority of the preamble as a guide of treaty interpretation see International Law Commission, *Draft Articles on the Law of Treaties with Commentaries*, A/CN.4/185 221 (1966) (stating that [t]he preamble forms part of a treaty for purposes of interpretation is too well settled to require comment.").

<sup>13</sup> Stephen Gorove, Legal Problems of the Rescue and Return of Astronauts, 3 INT'L L. 898, 899 (1968-1969).

its communication apparatus,<sup>14</sup> flight control systems<sup>15</sup> and maneuverability.<sup>16</sup> Considering the humanitarian sentiments of the Rescue Agreement, this honorable Court ought to find that Borsch and Paula had an emergency landing in Rastalia due to accident and distress.

#### ii) Paula and Borsch are personnel of the spacecraft

Although "astronauts" and "personnel of a spacecraft" are both used in the Rescue Agreement, neither term is defined in the multilateral treaties on outer space.<sup>17</sup> Nevertheless, Article 38 of the ICJ Statute states the teachings of highly respected publicists can be consulted as subsidiary means for determining rules of law.<sup>18</sup> Professor Bin Cheng writes, "astronaut" is "descriptive rather than technical, and refers to any person who ventures into outer space or who travels on board a spacecraft."19 He further states that although "personnel of a spacecraft" in its ordinary meaning likely excludes passengers, it was intended to include "all persons on board or attached to a space object, whether or not forming part of its personnel."20 According to Article 32 of the VCLT, when the ordinary meaning of a term "leads to a result which is manifestly absurd or unreasonable" other methods of interpretation, including the preparatory work and the circumstances of the conclusion of the treaty, can be used to reach a more appropriate interpretation of the term.<sup>21</sup> Judge Manfred Lachs has stated, all members of the crew "aboard a space vehicle should share a common legal status," and passengers should be accorded the same status.<sup>22</sup> Furthermore, the humanitarian nature of the Rescue Agreement "imposes an extensive interpretation, whereby all persons aboard a space vehicle should be" included.<sup>23</sup>

As Couleur's commander,<sup>24</sup> Borsch is a member of the crew and would be considered an astronaut or personnel within their ordinary meanings. While Paula was not a member of Couleur's crew, she was on board the spacecraft when it traveled into outer space. The humanitarian sentiments prompting the Agreement, coupled with the lack of explicit definitions, mandate that

<sup>14</sup> Compromis ¶16.

<sup>15</sup> *Id.*, ¶16, ¶17.

<sup>16</sup> *Id.*, ¶17.

BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 457 (Oxford Scholarship Online, 2012) (1997) [hereinafter CHENG, SPACE LAW].

<sup>18</sup> ICJ Statute, art. 38(1)(d).

<sup>19</sup> CHENG, SPACE LAW, at 457.

<sup>20</sup> *Id.*, at 507, 509.

<sup>21</sup> VLCT, art. 32.

<sup>22</sup> LACHS, LAW OF OUTER SPACE, at 67.

<sup>23</sup> *Id.*, at 75.

<sup>24</sup> Compromis, ¶12.

Paula be considered personnel of a space craft, thus afforded legal protection under the Rescue Agreement.

#### iii) Banché is the launching authority of Couleur

Article 6 of the Rescue Agreement refers to the "launching authority" as the "State responsible for launching." Applicant contracted with a private company, Solare, to use its spacecraft, Couleur, to remove Lavotto-1 from orbit. Solare is registered in the State of Mosolia, but its principal place of business is in Banché. Prior to Couleur launching from the Banché spaceport for its contracted mission, The Banché Space Agency provided the latest robotic seizing and removing technologies and the Banché Ministry of National Defense equipped Couleur with the Global-Orbiting Deflection Apparatus (GODA) Laser Satellite Removal System. Additionally, Couleur had performed several flights from Banché spaceport on earlier occasions and Borsch was a Banché astronaut. For these reasons, Applicant was responsible for the launching of Couleur and is the launching authority.

### iv) Therefore, Respondent is in violation of Article 4 by not promptly returning Paula

Even though the meaning of "prompt" is not provided in the Rescue Agreement, the context of the object and purpose of the agreement<sup>31</sup> make it clear that the term does not allow the Contracting Party to use the return of personnel as a bargaining chip for compensation. Five days after Applicant demanded the return of Paula,<sup>32</sup> Respondent publicly announced Paula would not be returned until Applicant compensated it for all costs and damage incurred from Couleur's illegal acts.<sup>33</sup>

Since the conditions in Article 4 of the Rescue Agreement have been met, the Respondent's obligation to promptly return Paula is clear.<sup>34</sup> The Rescue Agreement does not provide for the payment of expenses or damage be conditioned on the rescue and return of personnel.<sup>35</sup> Furthermore, the return of space objects and their component parts do not have the "prompt"

<sup>25</sup> Compromis ¶14.

<sup>26</sup> *Id.*, ¶12.

<sup>27</sup> *Id.*, ¶15.

<sup>28</sup> Id., ¶14.

<sup>29</sup> *Id.*, ¶15.

<sup>30</sup> *Id.*, ¶12.

<sup>31</sup> VCLT, art. 31.

<sup>32</sup> See Compromis, ¶17, ¶19 (On 6 January 2029, Applicant demanded return of Couleur, Borsch, and Paula. On 11 January 2029, a Rastalian spokesperson stated that Paula would be returned after reimbursement was made).

<sup>33</sup> *Id.*, ¶19.

FRANCIS LYALL & PAUL LARSEN, SPACE LAW: A TREATISE 140-141 (Surrey: Ashgate, 2009) [hereinafter LYALL & LARSEN].

<sup>35</sup> Rescue Agreement, art. 4; LYALL & LARSEN, at 141.

requirement,<sup>36</sup> thus highlighting the intent of the Rescue Agreement to not delay the return of personnel. The eventual return of Paula<sup>37</sup> does not expunge Respondent of its violation.

v) Therefore, Respondent is in violation of Article 4 by not returning Borsch The Respondent's continued refusal to return Borsch is a violation of Article 4 of the Rescue Agreement as Respondent's duty to return Borsch is unequivocal. Shortly after Couleur landed in Rastalia, Respondent announced Borsch would be held pending criminal charges; however, the spokesperson did not specify the crimes for which he was suspected.<sup>38</sup> One day later a Mosolian newspaper published a declaration from Borsch requesting political asylum in Rastalia, without giving any reasons.<sup>39</sup>

a) Respondent does not have jurisdiction over Borsch

Respondent does not have jurisdiction to criminally charge or ultimately prosecute any illegal acts committed by Borsch. Article VIII of the OST is clear that the State "on whose registry an object is launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof...." As the State of registry, Applicant has the responsibility to ensure any actions of its space object or the persons aboard do not violate international law. Even if Borsch violated international law while in outer space or the domestic law of Rastalia upon landing, Respondent remains obligated to return Borsch to Applicant under Article 4 of the Rescue Agreement.

b) Granting asylum is not allowed under the Rescue Agreement

After Respondent publicly announced Borsch was being criminally charged, it was reported by an independent newspaper that he did not want to return to Banché and requested political asylum.<sup>43</sup> This was followed by a separate report that a Rastalian government official had promised to drop all criminal investigations and give Borsch a key position in the Rastalian government.<sup>44</sup> This very scenario caused disagreement among major space-faring States

<sup>36</sup> Rescue Agreement, art. 5.

<sup>37</sup> Compromis, ¶23.

<sup>38</sup> *Id.*, ¶19.

<sup>39</sup> *Id.*, ¶20.

<sup>40</sup> Responses to Requests for Clarifications, ¶11 [hereinafter Clarification].

<sup>41</sup> LACHS, LAW OF OUTER SPACE, at 66.

<sup>42</sup> Paul Dembling & Daniel Arons, Rescue and Return of Astronauts, 9 Wm. & MARY L. Rev. 630, 653 (1968).

<sup>43</sup> Compromis, ¶20.

<sup>44</sup> Id., ¶20.

while negotiating the Rescue Agreement,<sup>45</sup> as there was concern among States that astronauts may seek, or be coerced into seeking, asylum in other States.<sup>46</sup> During negotiations, the major space-faring nations voiced their opinion that asylum should not be available to astronauts and that they should be safely and promptly returned.<sup>47</sup> While the French and Austrian delegates repeatedly stated that Article 4 of the Rescue Agreement does not preclude their national laws regarding aliens, the final wording of Article 4 appears to place an "absolute and unconditional" obligation to return personnel to the launching authority.<sup>48</sup> Consequently, Respondent has a duty to safely and promptly return Borsch.

### 2. Respondent violated Article 5 of the Rescue Agreement by not returning Couleur to Applicant

Article 5 of the Rescue Agreement requires that when a launching authority requests another Contracting Party to recover and return a space object or its component parts found within its territory, the Contracting Party must "take such steps as it finds practicable to recover the object or component parts" and return them to the launching authority. <sup>49</sup> As the launching authority, Applicant demanded the return of Couleur and since Respondent has successfully recovered Couleur, it has an obligation to return Couleur to Applicant.

i) Couleur is a space object that returned to Earth in Rastalia

Although the Rescue Agreement and OST do not provide a definition of "space object," Professor Cheng explains that the term encompasses spacecraft, satellites, and anything that human beings launch or attempt to launch into space.<sup>50</sup> As Couleur was launched into space from Banché spaceport on 1 January 2029,<sup>51</sup> it is a "space object." On its return to Earth, Couleur landed and was recovered by Respondent near Lake Taipo in Rastalia.<sup>52</sup> Couleur remains in Rastalia as of today.<sup>53</sup>

<sup>45</sup> CARL G. CHRISTOL, THE MODERN INTERNATIONAL LAW OF OUTER SPACE 175 (2nd ed., 1984).

<sup>46</sup> *Id*.

<sup>47</sup> Id.

<sup>48</sup> CHENG, SPACE LAW, at 283. For France, *United Nations, General Assembly, Travaux préparatoires* to the Return Agreement, Official Records of Meetings, U.N.GAOR, COPUOS, 86th mtg. at 14 (statement by French Amb. Deleau), A/AC.105/C.2/SR.86 (1968), (France re-affirmed its position in the plenary of the General Assembly).

<sup>49</sup> Rescue Agreement, art. 5.

<sup>50</sup> Cheng, International Responsibility and Liability for Launching Activities, XX ANNALS OF AIR AND SPACE LAW 297 (1995) [hereinafter Responsibility/Liability].

<sup>51</sup> Compromis, ¶15.

<sup>52</sup> *Id.*, ¶17.

<sup>53</sup> *Id.*, ¶23.

#### ii) Applicant demanded the return of Couleur

Applicant demanded the return of Couleur soon after it landed in Rastalia.<sup>54</sup> The Respondent located and recovered Couleur hours after its de-orbit and maintains possession today.<sup>55</sup> Upon recovering Couleur, Respondent was obligated to return the spacecraft to Applicant.<sup>56</sup> The Rescue Agreement does not permit Respondent to "fully examine" Couleur based on a suspicion of illegal activity. At the moment Applicant demanded the return of Couleur, Respondent was required to satisfy its obligation to return. Hence, Respondent's failure to return Couleur to Applicant is a violation of Article 5 of the Rescue Agreement.

### B. Respondent Violated Articles V and VIII of the Outer Space Treaty

Both Applicant and Respondent are State Parties to the OST, making its provisions applicable and binding in the resolution of this case.<sup>57</sup>

#### 1. Respondent violated Article V of the Outer Space Treaty

Article V of the OST requires that when an astronaut from a State Party lands in the territory of another State Party due to "accident, distress, or emergency... they shall be safely and promptly returned to the State of registry of their space vehicle." This provision served as the foundation for the Rescue Agreement and its requirements upon State Parties are almost identical.

#### i) Paula and Borsch are astronauts

As demonstrated above, Borsch and Paula were astronauts launched into space by Applicant.

ii) Paula and Borsch's emergency landing in Rastalia was caused by accident and distress

As demonstrated above, Couleur's emergency landing in Rastalia was caused by accident or distress.

#### iii) Applicant is the State of registry for Couleur

Applicant registered Couleur with the United Nations in accordance with the Registration Convention,<sup>59</sup> and there are no other States claiming ownership or jurisdiction over Couleur. Additionally, Applicant procured the launch of

<sup>54</sup> *Id.*, ¶17.

<sup>55</sup> *Id.*, ¶18.

<sup>56</sup> Rescue Agreement, art. 5(3).

<sup>57</sup> Compromis, ¶26.

<sup>58</sup> OST, art. V.

<sup>59</sup> Clarification, ¶11.

Couleur and it launched from Banché.<sup>60</sup> For these reasons, Applicant is the State of registry for Couleur.

Pursuant to (i), (ii) and (iii) above, Respondent's failure to safely and promptly return Borsch and Paula are in violation of Article V of the OST.

#### 2. Respondent violated Article VIII of the Outer Space Treaty

Article VIII of the OST states "ownership of objects launched into outer space ...and their component parts, is not affected by their presence in outer space...or their return to the Earth." In this case, the space object, Couleur, is owned by Solare, while some of its component parts, such as the robotic grappling arm and the GODA laser system, are owned by Applicant. Irrespective of whether Solare or Applicant are determined to have directed the mission, Applicant bears international responsibility for all national activities in outer space, even if those activities were carried out by a non-governmental entity. Furthermore, Article VIII of the OST requires that when space objects are found outside the territory of the State of registry, they "shall be returned to that State Party." Respondent's failure to return Couleur and its component parts to Applicant is a violation of Article VIII of the OST.

#### II. Rastalia Is Liable under International Law for the Damage to Couleur

### A. Respondent Is Responsible and Liable Pursuant to Articles VI and VII of the Outer Space Treaty

Article VI of the OST states: "State Parties to the Treaty shall bear international responsibility for national activities in outer space... whether such activities are carried on by governmental agencies or by non-governmental entities and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty." Respondent's (i) launch and (ii) abandonment of Lavotto-1 were national activities and Respondent is therefore responsible for ensuring Lavotto-1's activities were in conformity with the remainder of the OST.

Article VII of the OST states: "Each State Party to the Treaty that launches...an object into outer space...is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies." Respondent's (iii) space

<sup>60</sup> Compromis, ¶14, ¶15.

<sup>61</sup> OST, art. VIII.

<sup>62</sup> Compromis, ¶12, ¶14, ¶15.

OST, art. VI. (International space law deviates from the established principle of international law that States are not responsible for the activities of private entities.)

<sup>64</sup> OST, art. VI.

<sup>65</sup> Id., art. VII.

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object, Lavotto-1, collided with Applicant's (iv) space object, Couleur, causing (v) damage in (vi) outer space.<sup>66</sup> Respondent is therefore (vii) responsible and (viii) liable for the damage caused by its space object to Applicant's space object.

#### 1. The launch of Lavotto-1 was a national activity of Respondent

The "national activities in outer space" referred to in Article VI of the OST include space activities carried on by governmental agencies and non-governmental entities.<sup>67</sup> The launch of Lavotto-1 was initiated and carried out by Jardon, a private Rastalian satellite company,<sup>68</sup> at the behest of Respondent, on 15 January 2028.<sup>69</sup> Therefore, Lavotto-1's operation in space was Respondent's national activity under the meaning of Article VI and Respondent bears international responsibility.

#### 2. The abandonment of Lavotto-1 was a national activity of Respondent

Respondent made a conscious, unilateral decision to announce<sup>70</sup> that it considered Lavotto-1 a derelict<sup>71</sup> object and it had no prospect of resolving the malfunctions that placed it on a trajectory with significant probability of colliding with Mira.<sup>72</sup> Respondent's conscious decision as to how it would or would not manage its space object in outer space was a national activity.

Respondent's decision to declare Lavotto-1 a derelict object, as well as effectively abandoning the satellite, are national activities. Importantly, Respondent's decision to announce the status of Lavotto-1 as a derelict object does not absolve it of its responsibility or liability. Neither the OST nor any other space treaty expressly permit a State from renouncing ownership; in fact, Article VIII of the OST dictates that a State retains jurisdiction and control over its space object while in outer space and such responsibility is not

<sup>66</sup> Compromis, ¶16.

<sup>67</sup> OST, art. VI.

<sup>68</sup> Compromis, ¶5.

<sup>69</sup> *Id.*, ¶6, ¶7.

<sup>70</sup> Nuclear Tests, at 253, 267, ¶43 ("It is well recognized that declarations made by way of unilateral acts, concerning legal or factual situations, may have the effect of creating legal obligations. ... When States make statements by which their freedom of action is to be limited, a restrictive interpretation is called for.").

<sup>71 (</sup>The common and ordinary meaning of "derelict" is "in a very poor condition as a result of disuse and neglect" or "no longer cared for or used by anyone".) See *Derelict*, http://www.oxforddictionaries.com/definition/english/derelict, and also *Derelict*, http://www.merriam-webster.com/dictionary/derelict. (Legal definitions include language such as "forsaken, deserted or cast away".) *See What is derelict*, – (2nd ed. 1995), http://thelawdictionary.org/derelict/. (The use of the word "derelict" in Rastalia's public announcement regarding the status of Lavotto-1 should be interpreted in its ordinary and everyday sense.)

<sup>72</sup> Compromis, ¶10, ¶11.

reduced after claiming to have abandoned it.<sup>73</sup> Therefore, Respondent retained responsibility over its space object even after making its public announcement.

#### 3. Lavotto-1 is a Space Object

Lavotto-1 was a satellite launched into space from Rastalian territory on 15 January 2028.<sup>74</sup> Lavotto-1 is therefore a "space object."<sup>75</sup>

#### 4. Couleur is a Space Object

Couleur is a spacecraft that was launched into space from the territory of Banché on 1 January 2029.<sup>76</sup> Couleur is therefore a "space object."<sup>77</sup>

#### 5. Couleur's loss in communication and control constitute "damage"

Although the OST does not explicitly define "damage," this notion was subsequently defined and adopted under Article I of the Liability Convention as a "loss of or damage to property of States or of persons, natural or juridical...." Lavotto-1's debris collided with Couleur on 4 January 2029. Couleur's control and communication system were severely degraded by the collision with Lavotto-1's debris. The severe degradation to the control and communication of Couleur qualify under the notion of damage outlined in the Liability Convention.

#### 6. The damage took place in outer space

The damage to Couleur took place in outer space. Both Lavotto-1 and Couleur were in Low Earth Orbit (LEO) just prior to, during, and after the explosion of Lavotto-1 and the subsequent damage caused to Couleur. 81 LEO is somewhere other than the surface of the Earth.

### 7. Therefore, Respondent is responsible under Article VI of the Outer Space Treaty

Article VI of the OST imposes a two-fold obligation on States, making them responsible for: a) their objects and the entirety of that object's activities; and b) the activity and object's adherence to the provisions of the OST.

<sup>73</sup> OST, Article VIII.

<sup>74</sup> Compromis, ¶7.

<sup>75</sup> Cheng, Responsibility/Liability, at 297.

<sup>76</sup> Compromis, ¶15.

<sup>77</sup> Cheng, Responsibility/Liability, at 297.

<sup>78</sup> Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187 [Liability Convention], art. I(a). VCLT, art. 31(3)(a). (A treaty shall be interpreted by taking into account "[a]ny subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions." The Liability Convention was a subsequent treaty to the OST.)

<sup>79</sup> Compromis, ¶16.

<sup>80</sup> Id.

<sup>81</sup> Id.

The English text of the OST uses the term "responsibility" in Article VI whereas Article VII of the OST and Article II of the Liability Convention use the term "liable." This is a distinction without a meaningful difference, especially true given the fact that the Chinese, French, Russian, and Spanish texts of the OST use the same term in Articles VI and VII. En international law, and in the context of a case where there is damage, the terms are fundamentally interchangeable. The rationale pervading both Articles VI and VII is that "it is a principle of international law, and even a general conception of law, that any breach of an engagement involves an obligation to make reparation" as stated in the *Chorzów Factory* case as well as other decisions of this Court. The court of the court of the court.

It was Respondent's responsibility to ensure the activities of its space object, Lavotto-1, complied with the remaining provisions of the OST, and therefore Respondent must compensate Applicant for the damage it caused. As discussed immediately below, Lavotto-1's activities violated Article VII of the OST, thereby also violating Article VI.

### 8. Therefore, Respondent is liable under Article VII of the Outer Space Treaty

Article VII of the OST addresses the international liability of damage, in conjunction with the Liability Convention, discussed below. It requires that the damage be "by" a space object, similar to the "caused by" language in the Liability Convention. 86

As submitted above, Lavotto-1, caused damage to Couleur. Respondent's satellite was in an orbital position with significant probability of colliding

<sup>82</sup> Cheng, Article VI of the 1967 Space Treaty Revisited: "International Responsibility", "National Activities", and "The Appropriate State", 26 J. Space L. 7, 10 (1998) [hereinafter Cheng, Article VI]; Frans von der Dunk, Liability Versus Responsibility in Space Law: Misconception or Misconstruction?, PROCEEDINGS OF THE THIRTY-FOURTH COLLOQUIUM ON THE LAW OF OUTER SPACE 363 (1991).

<sup>83</sup> Cheng, Article VI, at 32.

Case Concerning the Factory at Chorzów (F.R.G. v. Pol.), 1928 P.C.I.J., Ser. A, No. 17, 23 and 47 (Sept. 13) [hereinafter Chorzów Factory]. See also Cheng, Article VI, at 10; BIN CHENG, GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS, (1953) [hereinafter Cheng, General Principles] at 234; see also ILC Articles on Responsibility of States for Internationally Wrongful Acts with commentaries (2001), 53 UN GAOR Supp. (No. 10), U.N. Doc. A/56/10 (2001) [hereinafter Articles on State Responsibility], arts. 27, 31.

<sup>85</sup> See, e.g., Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168 (Dec. 19) [hereinafter Congo]; Military and Paramilitary Activities in and against Nicaragua (Nicar. v. U.S.), 1986 I.C.J. 14, at 14, 149 (Jun. 27); Gabčikovo-Nagymaros Project (Hung. v. Slovk.), 1997 I.C.J. 43, at 55 (Sep. 25); Reparation for Injuries Suffered in the Service of the United Nations, 1949 I.C.J. 174, at 184 (Apr. 11); Corfu Channel (U.K. v. Alb.), 1949 I.C.J. 4, at 23 (Apr. 9).

<sup>86</sup> Liability Convention, Art. II.

with Applicant's manned space station, Mira.<sup>87</sup> Applicant was therefore necessitated<sup>88</sup> to attempt to de-orbit the defunct Lavotto-1 to protect its other space object. When Lavotto-1 broke apart, Applicant was further necessitated to attempt to de-orbit the piece of Lavotto-1 that still posed a danger to Mira. When Lavotto-1 exploded, it – or its component parts – caused damage to Couleur. Respondent is therefore liable pursuant to Article VII of the OST.

#### B. Respondent Is Liable Pursuant to Article III of the Liability Convention

Both parties are State Parties to the Liability Convention, making its provisions applicable and binding on the resolution of this case. Article III of the Convention provides: "In the event of [3] damage being caused elsewhere than on the surface of the earth to a [2] space object of one launching State... by [1] a space object of another launching State, the latter shall be liable only if the damage is due to its [4] fault or the fault of persons for whom it is responsible." Respondent is at fault for its space object causing damage to Applicant's space object and is therefore liable.

#### 1. Respondent is the Launching State of Lavotto-1

The term "launching State" includes: (i) a State which launches or procures the launching of a space object; and (ii) a State from whose territory or facility a space object is launched. The Registration Convention requires a launching State to register its space object in a national register as well as in the United Nation's register. Respondent launched Lavotto-1 from Rastalian territory on 15 January 2028 and registered it in its national register and with the United Nations shortly thereafter. Respondent is therefore the undeniable launching State of Lavotto-1.

#### 2. Applicant is the Launching State of Couleur

Applicant both procured the launch of Couleur and launched Couleur from its territory. Applicant registered Couleur as per the Registration Convention. Applicant is therefore the launching state of Couleur.

Although Solare, the owner of Couleur, is a company registered in Mosolia, 95 its principal place of business is in Banché and it may therefore be

<sup>87</sup> Compromis, ¶10.

<sup>88</sup> Articles on State Responsibility, art. 25.

<sup>89</sup> Liability Convention, art. III.

<sup>90</sup> *Id.*, art. I(c).

<sup>91</sup> Convention on Registration of Objects Launched into Outer Space, Sept. 15, 1976, 28 U.S.T. 695, 1023 U.N.T.S. 15, arts. II and III.

<sup>92</sup> Compromis, ¶7.

<sup>93</sup> *Id.*, ¶ 14, 15.

<sup>94</sup> Clarification, ¶11.

<sup>95</sup> Compromis, ¶ 12.

characterized as a Banché entity,<sup>96</sup> thus making Banché the launching authority. Nevertheless, even if Mosolia is considered a launching state, it does not preclude Applicant from also being a launching state.<sup>97</sup>

#### 3. Respondent caused the damage to Applicant

The damage to Couleur's communication and control systems are appropriate "damage" and such damage occurred somewhere other than the surface of the Earth.

When considering the notion of "caused by" under international space law, 98 one must consider not only the direct impact or action of an activity but also "the context of causality, which means that there must be proximate causation between the damage and the activity from which the damage resulted." According to Judge Lachs, "[t]o produce legal effect, the 'damage' thus defined must be caused by the space object or component parts of it, or by the launch vehicle or parts thereof." The causal link includes both cause-in-fact and proximate cause.

The debris from Lavott-1 caused damage to Couleur and therefore, the incontrovertible cause-in-fact of Couleur's damage was Respondent's space object, Lavotto-1. The VCLT requires the interpretation of a treaty to be made in light of its overall purpose and context.<sup>101</sup> Given that the Liability Convention emerged as a means of compensating victims of harm, its provisions should be interpreted in such a light.<sup>102</sup> Applicant is the victim in this case as its space object, Couleur, sustained damage from Lavotto-1.

Under international law, determining proximate cause requires an inquiry into the foreseeability of the harm<sup>103</sup> and exists when the consequences of a breach of an obligation are natural and foreseeable.<sup>104</sup> The foreseeability of

<sup>96</sup> Elletronica Sicula S.p.A. (U.S. v Italy) 1989 I.C.J. 15 (Jul. 20). But see Barcelona Traction, Light and Power Company, Limited (Belgium v Spain), 1964 I.C.J. 6 (July 24)

P7 Liability Convention, art. 5.

<sup>98</sup> This includes the relevant provisions of both the Liability Convention and the OST.

<sup>99</sup> Carl Christol. International Liability for Damage Caused by Space Objects, 70 Am. J. Int'l L. 346, 362 (1980) (quoting Gorove, Cosmos 954: Issues of Law and Policy, 6 J. Space L. 141 (1978)) [hereinafter Christol, International Liability]. See also Valérie Kayser, Launching Space Objects: Issues of Liability and Future Prospects 48 (2001).

<sup>100</sup> LACHS, LAW OF OUTER SPACE, at 115.

<sup>101</sup> VCLT, at art. 31.

<sup>102</sup> LACHS, LAW OF OUTER SPACE, at 115.

<sup>103</sup> Stephan Wittich, Compensation, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶17, http://opil.ouplaw.com/home/EPIL [hereinafter Wittich]; Christol, International Liability, at 362; Canada, Department of External Affairs, Cosmos Case, Canada: claim against the Union of Soviet Socialist Republics for damage caused by Soviet Cosmos 954, 18 I.L.M. (1979) 899.

<sup>104</sup> CHENG, GENERAL PRINCIPLE, at 250-51.

an act is based on the standard of the reasonable person and therefore only requires the foreseeability of general harm, not a specific harm.<sup>105</sup> Strict foreseeability is not the criterion for liability in space law, given the difficulty, if not impossibility, of foreseeing all forms of damage that may be caused by a space object;<sup>106</sup> as long as a form of damage is foreseeable, it matters not whether the specific form of damage was actually foreseen. Therefore, Respondent was the proximate cause of the damage to Applicant.

#### 4. Respondent is at fault for causing the damage to Applicant

#### i) The fault standard is applicable

The fault-based liability standard applies to the damage to Couleur as it was not caused on the surface of the Earth or to an aircraft in flight. Fault is not expressly defined in the Liability Convention, but the definition is found in general international law, as referenced by Article III of the OST. The ordinary meaning of fault in general international law is characterized as negligence, which is understood to be the infringement of the duty of due diligence or due care; it is not required to explicitly identify negligence or malice, so long as there is an act or omission which violates an obligation.

*ii)* There is a causal link between Respondent's fault and Couleur's damage Liability under Article III of the Liability Convention requires a causal link between Respondent's fault and the damage to Applicant's space object, Couleur. The causal link can be either the cause-in-fact or a proximate cause. As discussed above, proximate cause under international law addresses the foreseeability of the harm<sup>110</sup> and is demonstrated when the damage is the natural and foreseeable consequence of the breach of an obligation.<sup>111</sup> Given its knowledge of the safety risks associated with launching satellites, Respondent should have reasonably foreseen that the natural consequence of its actions (including its abandonment of Lavotto-1) could result in some form of harm.<sup>112</sup>

<sup>105</sup> Id. See Corfu Channel.

<sup>106</sup> See Christol, International Liability, at 362.

<sup>107</sup> Liability Convention, art. III.

<sup>108</sup> Christol, International Liability, at 369.

<sup>109</sup> Fisheries Jurisdiction Case (U.K. v Iceland), 1974 I.C.J. 3 (July 25). CHENG, GENERAL PRINCIPLES, at 225; Giuseppe Palmisano, *Fault*, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶16, http://opil.ouplaw.com/home/EPIL. VCLT, art. 31.

<sup>110</sup> Wittich, at ¶17; Christol, International Liability, at 362.

<sup>111</sup> CHENG, GENERAL PRINCIPLES, *supra*, at 250-51.

<sup>112</sup> Ram Jakhu, *Iridium-Cosmos Collision and Its Implications for Space Operations*, in YEARBOOK ON SPACE POLICY: 2008/2009 254 (Schrogl, Kai-Uwe et al. eds., 2010) [hereinafter Jakhu].

natural and expected phenomena.

iii) Respondent's activities proximately caused the damage to Couleur If this honorable Court determines that the cause-in-fact (such that Lavotto-1's space debris damaged Couleur) is insufficient to apportion liability, Respondent's activities were the proximate cause of the damage caused to Couleur. Article IX of the OST directs States to conduct their activities with due regard to the corresponding interests of other States. <sup>113</sup> Respondent should have realized, even before it launched Lavotto-1, that the development and launch of a space object posed inherent risks. Considering this was the first scientific satellite launched from Rastalian territory, <sup>114</sup> there was an increased likelihood of risk; one Respondent would have been aware of. But for Respondent's decision to launch Lavotto-1, Lavotto-1 would never have been in a position to collide with Mira. The claim that the solar windstorm

a) It was reasonably foreseeable that abandoning Lavotto-1 would cause damage to other space objects

was rare and therefore unexpected is of little relevance; Respondent should have known that solar windstorms occur and that satellites must be protected from them. At the very least, the de-orbiting and maneuvering to a parking orbit functions<sup>115</sup> of the satellite should have been designed to withstand

But for Respondent's decision to abandon Lavotto-1, Applicant would not have been forced to launch Couleur to prevent a collision between Lavotto-1 and Mira. Respondent had already made it clear that it believed the derelict Lavotto-1 posed a collision risk to Mira. It was reasonably foreseeable that abandoning Lavotto-1 could result in damage to Mira, for which it would be liable; that given Lavotto-1's impact trajectory with Mira, Applicant would attempt to intervene; and that if Applicant intervened, Applicant's space object could be harmed in the process. Thus, it was reasonably foreseeable that abandoning Lavotto-1 could result in a collision that could create a cascade of debris causing untold future damage.

<sup>113</sup> OST, art. IX.

<sup>114</sup> Compromis, ¶7.

<sup>115</sup> *Id.*, at ¶7, ¶8.

<sup>116</sup> Compromis, ¶9.

<sup>117</sup> When Cosmos 2251 collided with Iridium 33, many scholars held the US responsible for the collision, stating its failure to utilize Iridium 33's maneuvering capabilities were the true cause of the collision. Similar to this Court's rationale in the Corfu Channel Case, where Albania's failure to prevent the accident was seen as grave omission imputing liability, had Banché done nothing and simply left Lavotto-1 in orbit while posing a collision risk to Mira, it too could have been held liable. See Jakhu, at 255-259.

<sup>118</sup> Other than violating Article IX of the OST (to pay due regard to the interests of all other States in the operation of space activities), Respondent also violated its obligation to prevent transboundary harm, a rule of customary international law

It was also reasonably foreseeable that given the new composite materials used in Lavotto-1, along with Respondent's non-existent satellite launch record, something could go wrong and it would be required to de-orbit the satellite manually. Respondent ought to have utilized the new composite material for non-vital structural components in order to test it in outer space. But for such a manufacturing decision, Lavotto-1 would not have broken into two pieces when Couleur attempted to grapple it.

b) Applicant was necessitated to protect its space object Mira

These reasons forced Applicant to launch Couleur in an attempt to avert damage to Mira. Therefore, even if Couleur "caused" the explosion, it was forced into action by Respondent's prior actions which are necessarily the proximate cause of the damage to Couleur, which were reasonably foreseeable. Even if Applicant violated an obligation not to interfere with another State's space object, it is exonerated on the basis of necessity; the Mira space station was an essential interest in grave and imminent peril, Lavotto-1 had been characterized as derelict and was no longer an essential interest of Respondent, and utilizing Couleur to deorbit Lavotto-1 was the only option remaining to Applicant.<sup>120</sup>

codified by the International Law Commission Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities with commentaries, 58th Sess., U.N. Doc. A/61/10, 110-182 (2006). See Corfu Channel; Gabčíkovo-Nagymaros, at 48; Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (Jul. 8); Pulp Mills on the River Uruguay (Argentina v Uruguay), 2010 I.C.J. 14 (Apr. 20). This Court stated in Threat or Use of Nuclear Weapons that the obligation to prevent transboundary harm is now a part of the "corpus of international law relating to the environment", at ¶23-34. See also, ALEXANDRE KISS & DINAH SHELTON, GUIDE TO INTERNATIONAL ENVIRONMENTAL LAW (Nijhoff Publishers, 2007); DONALD ANTON & DINAH SHELTON, ENVIRONMENTAL PROTECTION AND HUMAN RIGHTS 80-81 (Cambridge University Press: Cambridge, 2011); 114957 Canada Ltée (Spraytech) v Hudson (Town), 2001 SCC 20, [2001] 2 SCR 241 at ¶32; Chinthaka Mendis, Sovereignty vs. transboundary environmental harm: The evolving International law obligations and Sethusamuduram Ship Channel Project, United Nations http://www.un.org/depts/los/nippon/unnff\_programme\_home/fellows\_pages/fellows\_ papers/mendis\_0607\_sri\_lanka.pdf. "Today, under general international law, a wellrecognized restraint on the freedom of action which a State in general enjoys by virtue of its independence and territorial supremacy is to be found in the prohibition of abuse by State of the rights enjoyed by it by virtue of international law."

<sup>119</sup> Compromis, at ¶7.

<sup>120</sup> Articles on State Responsibility, art. 25.

### C. If Respondent Is Not Found Liable under the Outer Space Treaty or Liability Convention, Respondent Remains Liable under General International Law

Under the ILC's Articles on State Responsibility, a State is internationally responsible for its wrongful acts.<sup>121</sup> Should a State commit a wrongful act, it "is under obligation to make full reparation for the injury caused by the internationally wrongful act."<sup>122</sup> In order for an act to constitute an "internationally wrongful act" that triggers reparation, two elements must be satisfied:<sup>123</sup> first, the act must be attributable to the State,<sup>124</sup> and second, the act must "constitute a breach of an international obligation of the State."<sup>125</sup>

#### 1. Damage to Couleur is attributable to Respondent

The actions and activities of a space object are attributable to its State. <sup>126</sup> As discussed above, the damage to Couleur was attributable to Lavotto-1, a space object under the control of Respondent, thus making Respondent responsible. <sup>127</sup>

### 2. Lavotto-1's damage to Couleur was a breach of Respondent's obligation not to harm others

Under international law, "when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character" there is a "breach". This breach of an international obligation entails the responsibility to make reparation. 129

One such international obligation is "not to cause damage [to another State]" and is unconditional. Further, there is an obligation to "use your property in such a way as not to harm others." The *Trail Smelter* arbitration between the US and Canada first espoused this principle and has since been reiterated in the jurisprudence and international instruments that have

<sup>121</sup> Id., art. 1.

<sup>122</sup> Id., art. 31; Chorzów Factory, 1928 P.C.I.J., at 47; see also Congo, at ¶259.

<sup>123</sup> Articles on State Responsibility, art. 2.

<sup>124</sup> *Id.*, art. 2(a).

<sup>125</sup> Id., art. 2(b).

<sup>126</sup> OST, art. VI.

<sup>127</sup> Articles on State Responsibility, art. 4.

<sup>128</sup> Id., art. 12.

<sup>129</sup> The duty can be derived from customary or conventional obligations. *See Id.* at 32-33, section (2); Rainbow Warrior (N.Z. v. France), 1990 UNRIAA, vol. XX 215, at 251, ¶75 (Apr. 30).

<sup>130</sup> Xue Hanqin, Transboundary Damage in International Law 14 (2003).

<sup>131</sup> This is derived from the Latin phrase "sic utere tuo ut alienum non laedas". Sompong Sucharitkul, State Responsibility and International Liability under International Law, 18 LOY. L.A. INT'L & COMP. L.J. 821, 828 (1996).

followed.<sup>132</sup> Although the *Trail Smelter* arbitration dealt with environmental issues, and is seen as the precursor to the requirement to prevent transboundary harm, it is not limited to the environmental law scheme and can apply to space law as well.<sup>133</sup> The ILC *Draft Articles on the Prevention of Transboundary Harm* place an obligation on States to ensure their otherwise acceptable activities do not harm other States; doing so is a violation that requires reparation.<sup>134</sup>

Respondent failed to fulfill its duties and breached its international obligation not to commit a wrongful act.<sup>135</sup> The Respondent's abandonment of its satellite, Lavotto-1, breached its duty not to cause harm and ignored the reasonably foreseeable fact that it would collide with Mira. In concert with the principles of co-operation and mutual assistance, as outlined in Article IX of the OST, Respondent could have invited other States to assist in the deorbiting procedure rather than merely announcing it was a derelict object and thereby implying it no longer considered Lavotto-1 its responsibility; by not doing so, it ended up causing actual damage to Couleur.<sup>136</sup> The damage was significant, including the loss of the spacecraft and subsequent surface damage on Earth. Therefore, Respondent violated its obligations under general international law, making its actions with regard to Lavotto-1 an internationally wrongful act.<sup>137</sup> As such, it is liable to Applicant for reparations.<sup>138</sup>

### 3. Respondent's abandonment of Lavotto-1 violated its obligation to conduct its space activity with due regard for the interests of other States

Respondent had an obligation under the OST to conduct its activities with due regard for Applicant's interests. Article IX of the OST states: "States Parties... shall conduct all their activities in outer space... with due regard to the corresponding interests of all other States Parties to the Treaty." By simply abandoning its satellite even though it posed a clear risk to Mira (one that

<sup>132</sup> Trail Smelter Arbitration (U.S. v. Can.), 3 R. Int'l Arb. Awards 1905 (1949) at 1965 and 1963; Corfu Channel, at 23; United Nations Conference on the Human Environment, June 5-16, 1972, *Stockholm Declaration*, U.N. Doc. A/CONF.48/14/ Rev.1 (July 16, 1972) Principle 21.

<sup>133</sup> CHENG, GENERAL PRINCIPLES, at 83; see also Legality of the Threat or Use of Nuclear Weapons, at 241-42.

<sup>134</sup> See ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, art. 3.

<sup>135</sup> See Articles on State Responsibility, arts. 2(b), 12.

<sup>136</sup> OST, art. IX; Compromis, ¶20-21.

<sup>137</sup> Articles on State Responsibility, art. 2.

<sup>138</sup> Id., art. 31.

<sup>139</sup> OST, art. IX.

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could have easily resulted in a debris domino-effect), Respondent violated this obligation and is therefore liable to Applicant for its sustained damage.

III. Banché Is Not Liable under International Law for the Costs of Recovery of Couleur, the Rescue and Medical Expenses for Commander Borsch, the Costs of the Evacuation of Lake Taipo and the Deaths of Both Mr. Thomas and Mr. Barton.

#### A. Applicant Is Not Liable for Recovery Costs of Couleur

According to Article 5 of the Rescue Agreement, a launching authority is responsible for the "[e]xpenses incurred in fulfilling obligations to recover and return a space object or its component parts..." There are circumstances that would arguably require a launching authority to pay recovery expenses when the space object or its component parts have not been returned, including when the launching authority requests but never claims the recovery and return of a space object or renounces ownership. Additionally, the costs of a lawfully conducted yet unsuccessful recovery operation may also fall to the launching authority. The Rescue Agreement makes no provision in this case for Respondent to be compensated when it has not returned Couleur to Applicant.

Since the adoption of the Rescue Agreement, space objects and their component parts have been recovered outside the territory of the launching authority and returned on at least four occasions. These cases show that when a space object or its component parts are found outside the territory of the launching authority, Contracting Parties do adhere to the enumerated requirements in Article 5 and, when requested, cover expenses. In these cases the Contracting Party returned the space object or held it for the launching authority's disposal before receiving payment for expenses incurred. Its

In this case, Applicant has demanded the return of Couleur, but Respondent has publicly stated it has a right to "fully examine the spacecraft no matter how long it [takes]." <sup>144</sup> The Rescue Agreement makes no provision for such examination and Respondent's continued retention of Couleur is in violation of the Rescue Agreement. Until Respondent returns Couleur, Applicant has no obligation to cover expenses.

<sup>140</sup> Rescue Agreement, art. 5.5 [emphasis added].

<sup>141</sup> LACHS, LAW OF OUTER SPACE, at 80.

<sup>142</sup> Frans G. von der Dunk, A Sleeping Beauty Awakens: The 1968 Rescue Agreement after Forty Years, 34 J. SPACE L. 411, 427-31 (2008). France and the United States have both honored their duties to cover recovery and return expenses for their space objects.

<sup>143</sup> Id.

<sup>144</sup> Compromis, ¶19.

### B. Applicant Is Not Liable under the Rescue Agreement or Outer Space Treaty for the Rescue and Medical Expenses of Borsch

Neither the Rescue Agreement nor the OST provide for the recovery of expenses incurred in rescuing an astronaut or personnel of a spacecraft. Regarding this omission, Judge Lachs stated the "silence of the law warrants the conclusion that no compensation can be demanded." This understanding is consistent with the humanitarian nature of the Rescue Agreement and applicable provisions of the OST. Consequently, the Rescue Agreement and OST provide no basis for the Respondent to recover the rescue and medical expenses for Borsch.

### C. Applicant Is Not Liable for the Costs of the Evacuation of Lake Taipo as It Does Not Constitute Compensable Damage

#### 1. Applicant is not liable under Article II of the Liability Convention

Article I of the Liability Convention defines "damage" as "loss of life, personal injury, or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of intergovernmental organizations." Under Article II a launching State is absolutely liable for damage caused on the surface of the earth or to an aircraft in flight by its space object; however, a launching State can be exonerated from liability to the degree that the claimant State's gross negligence wholly or partially contributed to the damage. If damage is proven, compensation should be paid in compliance with "international law and principles of justice and equity," in order to restore the other party to the position it would have held if the damage had not occurred.

The definition of damage under Article I of the Liability Convention does not include indirect or consequential damage, especially evacuation costs that were not the result of any actual or potential harm, but incurred solely based on Respondent's unfounded suspicions. During the drafting of the Liability Convention, the delegates discussed the inclusion of indirect damages, but no agreement could be reached and, as a result, indirect damage was not included in the definition.<sup>148</sup> Article XII makes express reference to the general legal principle of *restitution in integrum*. This principle includes direct loss and lost profits,<sup>149</sup> and when applied to this case shows that

<sup>145</sup> LACHS, LAW OF OUTER SPACE, at 80.

<sup>146</sup> Liability Convention, art. VI.

<sup>147</sup> Chorzów Factory, at 21.

<sup>148</sup> Travaux préparatoires to the Liability Convention, Legal Sub Comm. On the Peaceful Uses of Outer Space, 6th Sess., U.N. Doc. A/6804 Annex III (Sept. 27, 1967), compiled in N. JASENTULIYANA AND R. LEE, MANUAL ON SPACE LAW (Oceana: Oceana Publishers, 1979); CHENG, SPACE LAW, at 323.

<sup>149</sup> Armel Kerrest & Lesley Jane Smith, *Article VII of the Outer Space Treaty*, in COLOGNE COMMENTARY ON SPACE LAW, Vol. 1, 126, 141 (Stephen Hobe *et al* eds., 2009).

damage must flow directly and consequently from the event causing the harm. This restrictive definition is supported by the analysis in *Factory at Chorzów* determining that "contingent and indeterminate damage" is excluded. The evacuation costs of Lake Taipo were not proximately caused by the landing of Couleur in Rastalia and as a result, Applicant should not be liable.

#### 2. Applicant is not liable under general international law

There must be a direct causal link between a State's actions and the damage caused for a State to be held liable. Applicant has breached no international obligation and there is no direct causal link between Applicant's conduct and the evacuation of Lake Taipo, thus Applicant is not liable. For liability to attach, Applicant's breach must be the proximate cause of the damage. Professor Cheng stated, "the relation of cause and effect operative in the field of reparation is that of *proximate causality* in legal contemplation. In order that a loss may be regarded as the consequence of an act for purposes of reparation, either the loss has to be the proximate cause of the loss." 153

In this case, Applicant did not cause Lake Taipo to be evacuated. Rather, Respondent ordered an evacuation of Lake Taipo based on an inaccurate suspicion.<sup>154</sup> Although Article II of the Liability Convention provides for absolute liability, Couleur was not the proximate cause of the damage, so Article II does not control this issue.

### D. Applicant Is Not Liable under the Liability Convention for the Deaths of Mr. Thomas and Mr. Barton

Just as with the evacuation of Lake Taipo, Applicant is neither liable for the death of Thomas nor Barton, because it is exonerated due to Respondent's gross negligence in launching and abandoning Lavotto-1; the deaths do not constitute damage proximately caused by Applicant's actions.

Thomas' death was indirectly caused by a piece of Couleur's detached outer shell striking a building, 155 while Barton suffered a heart attack and died when Couleur unexpectedly flew above him. 156 Barton suffered no direct harm when Couleur landed in Rastalia or when a fragment broke apart and

<sup>150</sup> Elenaj Carpanelli & Brendan Cohen, *Interpreting 'Damage Caused by Space Objects' under the 1972 Liability Convention*, 56 PROC. INT'L INST. SPACE L. 29 (2013).

<sup>151</sup> Chorzów Factory, at 57.

<sup>152</sup> Chorzów Factory, at 47.

<sup>153</sup> CHENG, GENERAL PRINCIPLES, at 244. (emphasis added).

<sup>154</sup> Compromis, ¶18.

<sup>155</sup> Id., ¶18.

<sup>156</sup> Id., ¶19.

struck the campgrounds. There is no evidence Couleur or its component parts had direct contact with Thomas or Barton.

Barton's death is too remote to be claimed. Remote and indirect damage is not recoverable under the Liability Convention or general international law.<sup>157</sup> A heart attack suffered as a result of a spacecraft simply flying overhead does not fall within the definition of compensable damage under the Liability Convention and cannot be recovered.

## E. Applicant Is Exonerated from Absolute Liability Due to Respondent's Gross Negligence under Article VI of the Liability Convention

Even if Applicant were to be found liable under Article II of the Liability Convention, Article VI provides that the launching authority may be exonerated from absolute liability if "the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage...." The space law treaties do not define gross negligence, but in the *travaux préparatoires* to the Liability Convention, delegates confirmed that gross negligence was similar to a "willful or reckless act or omission" and meant something more than mere negligence. This view was consistent with the understanding of gross negligence in domestic jurisdictions. 159

Respondent's launch of Lavotto-1 into outer space with no ability to recover it from orbit in the event of malfunction and ultimately abandoning it while on a collision course with Mira Space Station amounts to gross negligence. At the time Respondent abandoned Lavotto-1, it was significantly probable that it would collide with Mira and the consequences were certain to be deadly. Respondent's gross negligence prompted Applicant to mitigate the pending doom by removing Lavotto-1 from orbit. Had Applicant not been necessitated to remove Lavotto-1 from its collision course with Mira, it

<sup>157</sup> See The Naulilaa Claims, (Port v. Germany), 2 R.I.A.A. 1013 (1928), where the arbitral tribunal found that the damage caused to Portuguese colonial territory were too remote to be attributable to Germany's activities. See also Stephen Gorove, Some Comments on the Convention on International Liability for Damage Caused by Space Objects, PROCEEDINGS OF THE SIXTEENTH COLLOQUIUM ON THE LAW OF OUTER SPACE 253 (1973).

<sup>158</sup> United Nations, General Assembly, Travaux préparatoires to the Liability Convention, Official Records of Meetings, U.N.GAOR, COPUOS, 50th mtg. at 3 (statement by U.S. Amb. Sohier), U.N. Doc. A/AC/105/C.2/SR.50 (1965). United Nations, General Assembly, Travaux préparatoires to the Liability Convention, Official Records of Meetings, U.N. GAOR, COPUOS, 77th mtg. at 9 (statement by Indian Amb. Haraszi), U.N. Doc. A/AC/105/C.2/SR.77 (1966).

<sup>159</sup> Jean Limpens et al, *Liability for One's Own Act, in* VOL XI (TORTS) INTERNATIONAL ENCYCLOPEDIA OF COMPARATIVE LAW 65, 70 (Andres Tunc *et al* eds., 1983). (Although no distinct definition can be deduced from civil and common law jurisdictions, both systems afford a degree of severity of the conduct necessary to meet the gross negligence standard.)

would not have been in position to cause damage to Rastalia. When Levotto-1 experienced structural failure and subsequent explosion, it was its debris fragment that seriously damaged the normal functioning of Couleur's communications and flight control systems causing it to land in Rastalia. As such, Applicant is wholly exonerated from liability damage caused on the surface of the Earth in Rastalia.

#### F. Applicant Has Not Committed Any Other Internationally Wrongful Act

Respondent has failed to show that Applicant committed any internationally wrongful act. An internationally wrongful act is fundamental for liability under general international law as the predecessor to this honorable Court stated in the *Chorzów Factory*<sup>161</sup> case and under Article VI of the OST. Simply put, there is no liability under general international law absent a wrongful act. Since Applicant committed no internationally wrongful act, it is not liable under general international law.

For these reasons, Applicant submits that it is not liable to Respondent for any costs or damage, and as such, should not pay compensation.

#### Submissions to the Court

For the foregoing reasons, the Republic of Rastalia respectfully requests the Court to adjudge and declare that:

- a. Rastalia acted in conformity with international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché.
- b. Rastalia is not liable under international law for the damage to Couleur.
- c. Banché is liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton.

<sup>160</sup> Compromis, ¶16.

<sup>161</sup> Chorzów Factory, at 21.

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#### 2. Argument of Respondent, the Republic of Rastalia

I. The Republic of Rastalia, Respondent, Acted in Conformity with International Law by Refusing to Return Couleur and Commander Borsch and the Earlier Return of Ms. Paula to Banché, Applicant.

Applicant alleges Respondent violated international law, but Respondent's actions are consistent with Respondent's obligations and rights under international law. First, Respondent's refusal to return Borsch complied with international law, because Borsch's landing in Rastalia was intentional and not caused by accident, distress, or emergency. Second, Paula is neither an astronaut nor personnel of a spacecraft thus her return is not governed by international space law. Finally, Respondent has a right to fully examine Couleur for hazardous and deleterious materials, including nuclear weapons before returning the spacecraft to Applicant. Therefore, this honorable Court should find in favor of Respondent, and hold that it acted in conformity with international law by refusing to return Couleur and Borsch, and the earlier return of Paula.

## A. Neither the Rescue Agreement nor the Outer Space Treaty Govern the Return of Borsch and Paula

As a primary source of international law,<sup>1</sup> treaty obligations are legally binding upon the parties to the treaty.<sup>2</sup> As State Parties<sup>3</sup> to the Rescue Agreement of 1968<sup>4</sup> and the Outer Space Treaty of 1967<sup>5</sup> both Applicant and Respondent are required to comply with their provisions;<sup>6</sup> however, their

<sup>1</sup> Statute of the International Court of Justice, Jun. 26, 1945, 33 U.N.T.S. 993 [hereinafter ICJ Statute], art. 38(1); Case Concerning the Continental Shelf (Tunis. v. Libya), 1982 I.C.J. 18, 38 (Feb. 24).

Nuclear Test (Austl. v. Fr.), 1974 I.C.J. 253, 268 (Dec. 20); Vladimir Kopal, United Nations and the Progressive Development of International Space Law 7 Fin. Y.B. INT'L L 1, 3 (1996).

<sup>3</sup> Compromis, ¶26.

<sup>4</sup> Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119 [hereinafter Rescue Agreement].

<sup>5</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty or OST].

<sup>6</sup> Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 311 [hereinafter VCLT], art 26.

provisions do not govern the return of Borsch and Paula in this case. Article 4 of the Rescue Agreement states "if owing to accident, distress, emergency or unintended landing, the personnel of a spacecraft land in territory under the jurisdiction of a Contracting Party..., they shall be safely and promptly returned to representatives of the launching authority." Article V of the OST provides a similar framework.

#### Couleur's landing in Rastalia was intentional and not due to accident, distress, or emergency

After Couleur was struck by a piece of Lavotto-1 debris fragment, Borsch received permission from his private employer, Solare, to land in Banché. Ultimately, Borsch decided to land in Rastalia rather than Banché. The terms "accident, distress, emergency, or unintentional" are not defined in the Rescue Agreement or OST. The Vienna Convention on the Law of Treaties ("VCLT") of 1969 dictates that the interpretation of a treaty must be "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context." Although the VCLT is non-retroactive and came-into-force after the Rescue Agreement and OST, the VCLT simply codified existing custom; therefore, the principles outlined in the VCLT are applicable to the Rescue Agreement and OST. The understandings of these terms are the same for both treaties, because the preamble to the Rescue Agreement states that its purpose is to "develop and give further concrete expression" to the obligations on parties in the OST as it relates to astronauts.

Each of these terms describe situations that usually occur suddenly and call for immediate action. When there is accident, distress, or emergency during space flight, "there can be little doubt that such events must be the major cause or preponderant reason for the landing." Although Couleur suffered damage in outer space, this damage did not cause an immediate landing and more specifically, did not cause the landing in Rastalia. After missing his first attempt to land at the Banché spaceport, Borsch decided to land in Rastalia rather than the Banché Spaceport or an alternate location in Banché. 15

<sup>7</sup> Rescue Agreement, art. 4.

<sup>8</sup> Compromis, ¶17.

<sup>9</sup> *Id.*, ¶17.

<sup>10</sup> VCLT, art. 31.

<sup>11</sup> Gabčikovo-Nagymaros *Project* (Hung. V. Slovk.), 1997 I.C.J. 7, 38, ¶46 (Sept. 25) [hereinafter Gabčikovo-Nagymaros].

<sup>12</sup> William Doolittle, The Man in Space: The Rescue and Return of Downed Astronauts, 9 U.S.A.F. JAG L. REV. 4, 7 (1967).

<sup>13</sup> Stephen Gorove, Legal Problems of the Rescue and Return of Astronauts, 3 INT'L L. 898, 900 (1968-1969) [hereinafter Gorove, Rescue and Return of Astronauts].

<sup>14</sup> Compromis, ¶16.

<sup>15</sup> *Id.*, ¶17.

Both applicable provisions<sup>16</sup> require the landing in Rastalian territory be unintentional and not caused by accident, distress, or emergency. Although damage resulting from Couleur's destruction of Lavotto-1 did require Couleur to make an urgent landing,<sup>17</sup> there is no evidence this damage forced Couleur to land in Rastalia instead of Banché. Rather, Borsch decided to land in Rastalia.<sup>18</sup> Borsch's subsequent refusal to be returned to Banché and his request for political asylum<sup>19</sup> are further evidence that his landing in Rastalia was caused by his intentional decision.<sup>20</sup> Borsch's intentional decision to land in Rastalia absolves Respondent of any obligation to return him to Applicant pursuant to Article 4 of the Rescue Agreement and Article V of the OST.<sup>21</sup>

## 2. Passengers on spacecraft are not "personnel of a spacecraft" nor astronauts

Neither "astronaut" nor "personnel of a spacecraft" are defined in any of the United Nations multilateral treaties on outer space.<sup>22</sup> Article 31 of the VCLT provides that treaty terms can be interpreted by the "meaning of a term as it was understood at the time the treaty was entered into."<sup>23</sup> At the time of negotiations the term "astronaut" was a "highly trained state-employed professional, and not simply anyone who might go into space."<sup>24</sup> Past State practice shows that astronauts need three elements: training, altitude, and selection.<sup>25</sup> Similarly, "personnel of a spacecraft" was understood to encompass trained spacecraft pilots, scientists, and physicians assigned as mission specialists, so it does not cover regular passengers<sup>26</sup> such as Paula.

While Paula was a well-known scientist, funded by her government, and selected by Solare for the commercial space flight, she should be considered a passenger. There is no evidence she received the necessary formal training, had official responsibilities, or performed scientific experiments in outer space. Her selection for the flight was the result of winning an award. An example of the training and qualifications required for selection as an

<sup>16</sup> Rescue Agreement, art. 4. OST, art. V.

<sup>17</sup> Compromis, ¶16.

<sup>18</sup> Compromis, ¶17.

<sup>19</sup> Id., ¶20.

<sup>20</sup> Gorove, *Rescue and Return of Astronauts*, at 900. (A contracting party may grant political asylum to astronauts or personnel of a spacecraft who intentionally and not due to accident, distress, or emergency land in its territory).

<sup>21</sup> MANFRED LACHS, THE LAW OF OUTER SPACE: AN EXPERIENCE IN CONTEMPORARY LAW-MAKING 77 (Nijhoff Publishers, 2010) (1972) [hereinafter Lachs].

<sup>22</sup> BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 457 (Oxford Scholarship Online, 2012) (1997) [hereinafter Cheng, Space Law].

<sup>23</sup> VCLT, art. 31.

Francis Lyall, Who is an astronaut? The inadequacy of current international law, 66 Acta Astronautica 2 (2010).

<sup>25</sup> Lyall and Larson, at 131-132.

<sup>26</sup> Gorove, Rescue and Return of Astronauts, at 899.

astronaut were included in a 2008 press release by the European Space Agency Astronaut Corps. The Press Release provided a preferred age, competence in specific disciplines, and a host of other qualifications including medical and mental stability.<sup>27</sup> Her status aboard Couleur is most similar to a space flight participant as defined in United States domestic law as anyone who is not a member of the flight crew.<sup>28</sup> Under this distinction, Paula would not be entitled to protection under the Rescue Agreement.

Just as Respondent had no international obligation to return Borsch, it has no obligation to return Paula because the return of passengers does not fall within the scope of either the Rescue Agreement or the OST. As a result, the timing of Paula's return to Applicant was not a violation of international law.

## B. Further, Respondent Has No Obligation to Return Borsch to Applicant after He Claimed Political Asylum

In the *Lotus* case, the Permanent Court of International Justice recognized that a state has the right to enforce its laws within its territory.<sup>29</sup> It is universally recognized that a State may exercise jurisdiction when a foreign national<sup>30</sup> commits a crime within its territory,<sup>31</sup> including its airspace.<sup>32</sup> Furthermore, Article 1(1) of the U.N. Declaration on Territorial Asylum states that "asylum granted by the State, in the exercise of its sovereignty.... Shall be respected by all other States."<sup>33</sup>

Any decisions regarding criminal prosecution for actions occurring within Rastalian territory or grants of asylum within the territory of Rastalia are within the discretion of Respondent, because Borsch entered the territory intentionally.<sup>34</sup> This position was put forward clearly by the Austrian and French delegates during the negotiation of Article 4 of the Rescue Agreement.<sup>35</sup> The delegates agreed to Article 4 based on the understanding

<sup>27</sup> Lyall and Larsen, at 131. See http://www.esa.int/esaHS/SEMPQG3XQEF\_index\_0.html and http://www.esa.int/SPECIALS/Astronaut\_Selection/index.html.

<sup>28</sup> *Id.*, at 494.

<sup>29</sup> Case of the S.S. "Lotus," 1927 P.C.I.J. Series A. No. 10, p. 10 (Sep. 7) [hereinafter Lotus].

<sup>30</sup> *Id.*, ¶10.

<sup>31</sup> BROWNLIE'S PRINCIPLES OF INTERNATIONAL LAW 303 (James Crawford ed., 8th ed. 2012) [hereinafter Brownlie].

<sup>32</sup> Id., at 116.

<sup>33</sup> U.N. Declaration on Territorial Asylum, G.A. Res. 2312 (XXII), 22 U.N. GAOR, Supp. No. 16, U.N. Doc. A/6716 (1967) at 81.

<sup>34</sup> Paul Dembling & Daniel Arons, *Rescue and Return of Astronauts*, 9 WM. & MARY L. REV. 630, 653 (1968) [hereinafter Dembling and Arons].

<sup>35</sup> VCLT, art. 32. (Supplementary means of interpretation may be employed when the ordinary meaning as determined by VCLT, art. 31 is ambiguous or obscure, or leads to a manifestly absurd or unreasonable result.) See Territorial Dispute (Libyan Arab Jamahiriya/Chad), [1994] ICJ Rep. 6, pp. 6, 27. (Travaux préparatoires may aid in the interpretation of a treaty.)

that the rights of aliens under national law regarding asylum were not impaired when the astronaut arrived in its territory intentionally and not by emergency or accident.<sup>36</sup> The delegates' concerns are directly applicable to this case, because Borsch did not enter Rastalia by emergency or accident. The position is also supported by the text of Article 4 of the Rescue Agreement which requires the Contracting Party to safely and promptly return the personnel only when their landing is caused by accident, distress, or emergency. Absent these conditions, Respondent has the authority according to its territorial jurisdiction to grant Borsch asylum or in other words, Applicant can allow Borsch to "remain in its territory even if his own State objects."<sup>37</sup> Additionally, as a member of the United Nations, Respondent's actions comply with the Universal Declaration of Human Rights (UDHR) of 1948.<sup>38</sup> Indeed, had the Respondent returned Borsch to Applicant it would have acted contrary to Borsch's human right to asylum; according to Article 14 "everyone has the right to seek and to enjoy in other countries asylum from persecution."39

Borsch's decision to land in Rastalia led directly to the death of two Rastalian citizens.<sup>40</sup> While it is unclear whether Borsch is criminally liable for the deaths of Barton and Thomas under Rastalian national law, it is universally recognized that States, as a result of their sovereignty, have the authority to exercise jurisdiction regarding criminal actions within their territory.<sup>41</sup> Respondent's decision to hold Borsch in its territory to determine whether he violated its national laws does not violate international law.<sup>42</sup> Similarly, Respondent is entitled to exercise its sovereignty regarding Borsch's asylum request and is under no obligation to return him to Applicant.

#### C. The Rescue Agreement Does Not Require a Prompt Return of Couleur

Article 5 of the Rescue Agreement requires that when a launching authority requests another Contracting Party to recover and return a space object or its component parts found within its territory, the Contracting Party must "take

<sup>36</sup> FRANCIS LYALL AND PAUL LARSEN, SPACE LAW: A TREATISE 140 (Surrey: Ashgate, 2009) [hereinafter Lyall and Larsen] (citing Dembling and Arons, at 652-53).

<sup>37</sup> ANTHONY AUST, HANDBOOK OF INTERNATIONAL LAW 170 (2nd ed., 2010) [hereinafter Aust].

<sup>38</sup> Universal Declaration of Human Rights of 1948, G.A. Res. 217 (III), U.N. Doc. A/Res/3/217A (Dec. 10, 1948), art. 14. While UNGA resolutions are not binding they may constitute evidence of *opinio juris* when dealing with general norms of international law. Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America), Merits, Judgment, I.C.J. Reports 1986, p. 100 [hereinafter Nicaragua].

<sup>39</sup> Id.

<sup>40</sup> Compromis, ¶17, ¶19.

<sup>41</sup> Aust, at 254.

<sup>42</sup> Lotus, at 10.

such steps as it finds practicable to recover the object or component parts" and return them to the launching authority.<sup>43</sup> Unlike Article 4 regarding the rescue and return of personnel, Article 5 requires the recovery and return of space objects to be made when requested by the launching authority. Whether the space object landed by accident, distress, emergency, or intentionally are of no consequence to the provisions of Article 5.

Under the Rescue Agreement, the launching authority is the State responsible for launching the space object.<sup>44</sup> Applicant is clearly the launching authority for Couleur, as it was launched from its territory, contained components provided by Applicant, and a part of its mission was procured by Applicant through contract.<sup>45</sup> Although "space object" is not defined under the Rescue Agreement or any other United Nations space law treaty, highly respected publicists have reviewed the matter and Article 38 of the Statute of the ICJ states their teachings can be consulted as subsidiary means for determining rules of law.<sup>46</sup> Professor Bin Cheng explains that the term includes spacecraft, satellites, and anything human beings launch or attempt to launch into outer space.<sup>47</sup> As a spacecraft launched into outer space with persons aboard, Couleur is a space object.

Furthermore, Respondent suspects Couleur carried a nuclear weapon that was used in orbit.<sup>48</sup> A nuclear weapon would be of a hazardous and deleterious nature and if its existence is confirmed, it would be a violation of Article IV of the OST. Respondent has a right to inspect a space object found in its territory for a "hazardous or deleterious nature" under Article 5 of the Rescue Agreement.<sup>49</sup> State practice under Article 5 supports Respondent's actions, since at least three recovering States exercised this right when space objects were found in their territories. Each of these States (South Africa, United States, and Japan) inspected the recovered space objects for a hazardous or deleterious nature before returning the space object to the launching authority.<sup>50</sup> While the phrase "hazardous or deleterious nature" is not defined, it is reasonable and logical to assume the phrase includes nuclear material or weapons. Although the Respondent may request the assistance of the launching authority to eliminate possible dangers of harm, it is under no obligation to make such a request.<sup>51</sup>

<sup>43</sup> Rescue Agreement, art. 5.5.

<sup>44</sup> Id.

<sup>45</sup> Compromis, ¶14, 15.

<sup>46</sup> ICJ Statute, art. 38(1)(d).

<sup>47</sup> Bin Cheng, International Responsibility and Liability for Launching Activities, XX AIR AND SPACE LAW 297 (1995) [hereinafter Cheng, International Responsibility].

<sup>48</sup> Compromis, ¶18.

<sup>49</sup> Rescue Agreement, art. 5.4.

<sup>50</sup> Frans von der Dunk, A Sleeping Beauty Awakens: The 1968 Rescue Agreement after Forty Years, 34 J. SPACE L. 411, 427-430 (2008).

<sup>51</sup> Rescue Agreement, art. 5.5.

Furthermore, Respondent suspects that Couleur has a nuclear weapon that was used in orbit and will verify its existence before returning Couleur to Applicant. Respondent's actions are supported by the Japanese delegate's words during the negotiations of the Rescue Agreement. The delegate argued that the agreement does "not place an obligation on a contracting party to recover and return a space object intended primarily for the development of a bombardment system to be placed into any kind of orbit." Article 5 of the Rescue Agreement does not require Respondent to return Couleur to Applicant before a determination regarding the suspicion of a nuclear weapon is resolved.

### II. Rastalia Is Not Liable under International Law for the Damage to Couleur

## A. Rastalia Is Not Liable for the Damage to Couleur under the Outer Space Treaty

Respondent did not violate any of the provisions of the OST and is therefore not internationally liable for the damage sustained by Couleur. Respondent is not at fault for the damages caused to Applicant's space object as Applicant's own actions caused the damage.

#### 1. Article VI of the Outer Space Treaty does not apportion liability

Article VI of the English text of the OST merely provides that a State is responsible for its space objects; it does not address liability. While a finding of liability always entails responsibility, a finding of responsibility does not necessarily entail liability.<sup>53</sup> Therefore, Respondent cannot be liable to Applicant solely under Article VI of the Outer Space Treaty.

## 2. Article VII of the Outer Space Treaty does not apply because Rastalia was not at fault

Article VII asserts a launching State is internationally liable for damage to another State. "Internationally liable" simply means liability in the form that is used under international law, namely fault-based liability.

Although fault is not defined in the OST, the definition can be found in the general rules of international law, as referenced and incorporated by Article

<sup>52</sup> Travaux préparatoires to the Rescue Agreement, art. 5, U.N. Doc. A/AC. 105/C.2/SR.86 (14.12.67) reprinted in Cheng, Space Law, at 283-284.

<sup>53</sup> Cheng, *International Responsibility*, at 308. ("[R]esponsibility can mean simply a factual relation of authorship. ... [R]esponsibility implies a person's answerability for his or her own acts." *See also* "[B]reaches of applicable legal norms causing damage to another *create liability*, which consists in an obligation to make integral reparation to the other person for the damage caused.")

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III of the OST.<sup>54</sup> The ordinary meaning of fault in general international law is the infringement of the duty of due diligence or due care.<sup>55</sup>

It is outside the scope of due diligence or due care to expect Respondent to prevent its space object from being manipulated by another State; it is even further outside the scope of "fault" to hold a manipulated State responsible for the damage caused by the manipulation of another State. Respondent could not have predicted, nor would it have been reasonable for it to predict, that another State would attempt to interfere with its space object and that the interference would cause damage. Therefore, Respondent is not at fault for the damage caused to Couleur when Couleur interfered, manipulated and was subsequently damaged by Lavotto-1.

#### 3. The mere possibility of damage does not amount to liability

Under international law, the simple possibility of damage is not enough to demonstrate liability.<sup>56</sup> Applicant cannot rely on the fact that Lavotto-1 posed a mere threat to Mira to argue Respondent is liable for the damage caused to Couleur. Actual damage must flow from a particular action to trigger liability.<sup>57</sup> Lavotto-1 never actually collided with Mira nor did it cause any damage to Mira. Therefore, Respondent never caused any damage to Applicant as the potential possibility never materialized. Rather, Applicant interfered, manipulated and damaged Lavotto-1: first when Couleur broke Lavotto-1 into two pieces with its grappling arm, and second when Couleur exploded Lavotto-1 with its laser weapon.

<sup>54</sup> Carl Christol, *International Liability for Damage Caused by Space Objects*, (1980) 74 AM. J. INT'L L. 346, 359 at 369 [hereinafter Christol].

<sup>55</sup> Lighthouse Case between France and Greece, 31 PCIJ 59, 17 March 1934. See Brownlie at 552. ("There is a general agreement among writers that the rule of non-responsibility cannot apply where the government concerned has failed to show due diligence.") See Giuseppe Palmisano, Fault, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶16, <a href="https://opil.ouplaw.com/home/EPIL">https://opil.ouplaw.com/home/EPIL</a>. See also Black's Law Dictionary (2nd e), What is Due Diligence, available at http://thelawdictionary. org/due-diligence/. ("Due diligence is the "measure of prudence, activity or assiduity as is properly to be expected from... a reasonable and prudent man under the particular circumstances.") See also Black's Law Dictionary (2nd e), What is Due Care, available at http://thelawdictionary.org/due-care/. ("Due care is "just, proper and sufficient care, so far as the circumstances demand it; the absence of negligence.")

<sup>56</sup> International Law Commission Articles on Responsibility of States for Internationally Wrongful Acts with commentaries (2001), 53 UN GAOR Supp. (No. 10) at 31, U.N. Doc. A/56/10 (2001) [hereinafter Articles on State Responsibility], at p. 35.

Articles on State Responsibility, at p. 36. ("... [I]nternational responsibility is not engaged by conduct of a State in disregard of its obligations unless some further element exists, in particular, "damage" to another State.")

## 4. Even if Respondent violated the Outer Space Treaty, Applicant is precluded from compensation as Applicant violated Articles I, III and IX of the Outer Space Treaty

When a State violates international law, it cannot rely on that violation to claim compensation for subsequent events.<sup>58</sup> Applicant violated the OST when it decided to interfere, manipulate and destroy Lavotto-1 rather than simply maneuver Mira out of harm's way if Lavotto-1's potential threat ever materialized.<sup>59</sup>

Article I of the OST stipulates that the use of outer space shall be in the interests of all countries. Applicant's use of an untested laser weapon in outer space created a cloud of debris that will likely limit the ability of other States to effectively utilize outer space in the future, 60 a clear violation of Article I. Article III of the OST specifies a State party must conduct its space activities "in accordance with international law" and "in the interest of maintaining international peace and security and promoting international cooperation and understanding."61 Applicant's unilateral decision to de-orbit a space object over which it had no jurisdiction, demonstrates its failure to promote international cooperation and understanding.<sup>62</sup> Further, its undisclosed use of a laser weapon, even if its intentions were for peaceful purposes, could be misinterpreted as an act of aggression, 63 such that Applicant used armed force against "the sovereignty, territorial integrity or political independence" of Respondent. Such an interpretation may lead to an outer space arms race which would run counter to the requirement to maintain international peace and security as well as general international consensus on preventing an arms race in outer space.64

<sup>58</sup> Articles on State Responsibility, at p. 93. (Gabcikovo-Nagymaros outlines the principle that a State which has failed to mitigate its damage would be precluded from recovery.)

<sup>59</sup> NASA, Space Debris and Human Spacecraft, 30 July 2015, available at http://www.nasa.gov/mission\_pages/station/news/orbital\_debris.html.

<sup>60</sup> COMMITTEE FOR THE ASSESSMENT OF NASA'S ORBITAL DEBRIS PROGRAMS, LIMITING FUTURE COLLISION RISK TO SPACECRAFT: AN ASSESSMENT OF NASA'S METEOROID AND ORBITAL DEBRIS PROGRAM, Chapter 13: Preparing for the Future, (Washington DC: National Academy Press, 2011) at 91.

<sup>61</sup> OST, art. III.

<sup>62</sup> OST, art. IX.

<sup>63</sup> United Nations, G.A. Res. 3314 (XXIX), Definition of Aggression, (14 December 1975), Annex: Article 1. (This court has determined that part of the definition reflects custom. (Nicaragua, at 14); Armed Activities on the Territory of the Congo (Democratic Republic of Congo v. Uganda), Judgment, 2005 I.C.J. 168, (Dec. 19) [hereinafter Congo].)

<sup>64</sup> United Nations, G.A. Res. 69/31, Prevention of arms race in outer space, A/69/438 (2 December 2014); United Nations, G.A. Res. 69/32, No first placement of weapons in outer space, A/69/438 (2 December 2014). Theresa Hitchens, 'Space Weapons: more security or less?' in JAMES CLAY MOLTZ, ED., FUTURE SECURITY IN SPACE:

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Article IX of the OST provides that States must conduct their outer space activities with "the principle of cooperation and mutual assistance" and "with due regard to the corresponding interests of all other States Parties" in mind. While "due regard" is not defined in the OST, it implies concern for other States interests; it is a principle of equity that requires the balancing of State interests. In the *Fisheries Jurisdiction* case for example, this honorable Court held that Iceland could not unilaterally extend its fishing jurisdiction and exclude the United Kingdom from such extended territory, as both States have an obligation to pay due regard to the interests of other States in the conservation and the equitable exploitation of fisheries resources. In the conservation and the equitable exploitation of fisheries resources.

Applicant failed to cooperate with and provide assistance to Respondent when it unilaterally decided to break off all relations with Respondent regarding its space programs. Applicant further failed to consult with Respondent before issuing a unilateral decree blocking any technological exports and forbidding cooperation between the two State's national space agencies. Applicant further failed to engage in a mutual effort to rectify the issues associated with Lavotto-1 and instead decided to act unilaterally. While such actions, individually, may be acceptable under international law, their cumulative effect, culminating with the unlawful interference of Respondent's space object, violated Respondent's sole jurisdiction over Lavotto-1.68 Respondent concedes the potential threat to Mira from Lavotto-1; however, there were quantifiable risks and viable assessments of the likelihood of harm.<sup>69</sup> Applicant's internal, unilateral and secretive decision to utilize the laser weapon, 70 despite having diplomatic channels to discuss the threat of this collision, demonstrates it lack of due regard. This failure to show due regard or to cooperate with other States is a violation of the OST – one that led to tangible consequences. Thus, Couleur's damage is the direct result of Applicant's actions and a reflection of its lack of due regard to other States' interests.

Applicant violated these articles when it acted in its own interest and decided, of its own accord, to de-orbit Lavotto-1 rather than investigate the possibility of maneuvering Mira out of harm's way, if that harm ever truly materialized. Applicant's decision to interfere, manipulate and destroy Lavotto-1 caused the destruction of Lavotto-1 and the subsequent debris that will negatively

COMMERCIAL, MILITARY, AND ARMS CONTROL TRADE-OFFS (Monterey, CA: Mountbatten Centre for International Studies, 2002). (The presence of one State placing weapons in space would very likely cause an arms race in space, as other States would move quickly to close the technological and military gap.)

<sup>65</sup> OST, art. IX.

<sup>66</sup> See Fisheries Jurisdiction Case (U.K. v. Ice.), Declaration of Judge Singh, 1974 I.C.J. 3, 40 (Jul. 25).

<sup>67</sup> Id., Merits Judgement at p. 34.

<sup>68</sup> Articles on State Responsibility, art. 15; OST, art. VIII.

<sup>69</sup> Compromis, ¶9-11.

<sup>70</sup> *Id.*, ¶18.

affect the interests of other space faring nations, thus violating its international obligations. Applicant's violation of the OST precludes it from recovering compensation.<sup>71</sup>

## B. Respondent Is Not Liable for the Damage to Couleur under Article III of the Liability Convention

The Liability Convention deals specifically with issues of liability, developing the notion in Articles VI and VII of the OST. The Respondent notes the legal maxim *lex specialis derogat legi generali*, which states that a more specific law governing a particular legal issue takes precedence over a more general law.<sup>72</sup> As State Parties to the Liability Convention, both Applicant and Respondent are bound to the outer-space specific description of liability espoused in the treaty.<sup>73</sup>

According to Article III of the Liability Convention, in the event of damage being caused elsewhere than on the surface of the Earth to a space object of a launching State by a space object of another launching State, the latter shall be liable only if the damage is due to its fault. Applicant for the loss of Couleur under Article III of the Liability Convention, because the damage caused to Couleur is not due to Respondent's fault.

#### 1. Respondent cannot be liable as it was not at fault

The Applicant's claim against Respondent under Article III of the Liability Convention is untenable, as the damage caused to Couleur was not due to Respondent's fault. Article III of the Convention provides: "In the event of damage being caused elsewhere than on the surface of the earth to a space object of one launching State... by a space object of another launching State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible."

When considering the notion of "caused by" under international space law,<sup>75</sup> one must consider not only the direct impact or action of an activity but also "the context of causality, which means that there must be proximate causation between the damage and the activity from which the damage

<sup>71</sup> Gabcikovo-Nagymaros, at 133. (Discussing the concept of *ex injuria jus non oritur* and *ex turpi causa non oritur actio*, the former stating violations cannot create law and the latter stating violations cannot form the basis of an action (the "clean hands" doctrine).)

<sup>72</sup> See also Articles on State Responsibility, art. 55. ("These articles do not apply where and to the extent that the conditions for the existence of an internationally wrongful act or the content or implementation of the international responsibility of a State are governed by special rules of international law.")

<sup>73</sup> Compromis, ¶26; VCLT, art. 26.

<sup>74</sup> Liability Convention, art. III.

<sup>75</sup> This includes the relevant provisions of both the Liability Convention and the OST.

resulted."<sup>76</sup> According to Judge Lachs, "[t]o produce legal effect, the 'damage' thus defined must be caused by the space object or component parts of it, or by the launch vehicle or parts thereof."<sup>77</sup> The causal link includes both causein-fact and proximate cause.

As a result of Couleur's use of a laser weapon, it caused Lavotto-1 to explode and was damaged as a result of the emanating debris. Respondent did nothing to cause the explosion or the resulting debris that damaged Couleur. Applicant's own decision to unilaterally manipulate and interfere with Lavotto-1 caused it to break apart and explode. To hold Respondent liable for Applicant's actions would be contrary to international law. Lavotto-1 never posed a threat to Couleur until Couleur rendezvoused with Lavotto-1 in space, attempted to de-orbit it with its grappling arm and then caused it explode using its laser weapon. Had Couleur not placed itself in Lavotto-1's orbit, not used its grappling arm and not used its laser weapon, Lavotto-1 would not have exploded and would not have caused damage to Couleur. Therefore, the Respondent was not at fault for the damage caused to Couleur. Without meeting the criteria of fault, Respondent cannot be held liable.

## 2. Respondent could not reasonably foresee that its space object would explode and cause damage to another space object

Although the debris that damaged Couleur originated from Lavotto-1, Respondent is not at fault. While the causal link outlining the cause-in-fact between the explosion and the damage to Couleur seems determinative, the causal chain leading to that damage in fact began when Couleur attempted to grapple Lavotto-1 with as well as when it fired its laser weapon.

A determination of proximate cause requires an inquiry into the foreseeability of the harm<sup>79</sup> and exists when the consequences of a breach of an obligation are natural and foreseeable.<sup>80</sup> The foreseeability of an act is based on the standard of the reasonable person; therefore it only requires general harm, rather than specific harm.<sup>81</sup> Strict foreseeability is not the

<sup>76</sup> Christol, at 362 (quoting Gorove, Cosmos 954: Issues of Law and Policy, 6 J. SPACE L. 141 (1978)). (Christol further notes that "clearly the term 'cause' should only require a causal connection between the accident [or action] and the damage.") See also Valérie Kayser, Launching Space Objects: Issues of Liability and Future Prospects (2001) at 48 [hereinafter Kayser]. ("Damage which finds its cause in the space object concerned, whether it is primary or secondary, would in principle be covered by the Convention.")

<sup>77</sup> Lachs, at 115.

<sup>78</sup> Compromis, at ¶15.

<sup>79</sup> Stephan Wittich, Compensation, MAX PLANCK ENCYCLOPEDIA OF PUBLIC INTERNATIONAL LAW ¶17, available at http://opil.ouplaw.com/home/EPIL; Christol, at 362.

<sup>80</sup> CHENG, GENERAL PRINCIPLES OF LAW AS APPLIED BY INTERNATIONAL COURTS AND TRIBUNALS, at 250-51 [Cheng, *General Principles*].

<sup>81</sup> *Id.*; *See also* Corfu Channel (United Kingdom of Great Britain and Northern Ireland v. Albania), ICJ Reports, 1949 [hereinafter Corfu Channel].

criterion for liability in space law, given the difficulty, if not impossibility, of foreseeing all forms of damage that may be caused by a space object.<sup>82</sup> Thus, as long as some form of damage is foreseeable, it does not matter whether the actual form of damage was indeed foreseen.

Although there are always risks associated with launching and operating a space object, Respondent could not have possibly foreseen that another State's space object would attempt to de-orbit its own object, without its permission, and then explode it and subsequently suffer damage. Such damage is not, and never could be, a foreseeable consequence of the normal operation of a space object. Even when Lavotto-1 ceased operating in a normal manner, Respondent could not have reasonably foreseen that it would explode and cause damage to another space object.

## 3. Applicant could reasonably foresee that using a laser on a space object could cause damage to another space object

Applicant's use of the grappling arm and laser weapon were the proximate cause of the damage to Couleur. It was entirely reasonable for Applicant to foresee that using an untested laser weapon in space could result in damage; foreseeing the circumstances that resulted in damage were elementary. Si Given that the operation of a laser weapon in space would result in damage, Applicant had assumed the risk that its actions may damage its own spacecraft. Similar to the situation in which the Canadian government failed to notify the US that it had outstanding payments owing for a supply of timber it purchased through an intermediary, "... the Canadian Government, having been able to avoid the grievance arising from [the timber company's] acts, does not seem to be entitled now to hold the United States military authorities in any way responsible for it." In this sense, Applicant assumed the risk associated with its activities and is now precluded from claiming liability against Respondent for damage arising from its predictably risky activity.

### C. Respondent Is Not Liable for the Damage to Couleur under General International Law

## 1. Respondent is not liable under general international law in the absence of a wrongful act; force majeur precludes such a finding

Respondent has failed to show that Applicant committed any internationally wrongful act. An internationally wrongful act is fundamental for liability under general international law as the Permanent Court of Justice stated in

<sup>82</sup> See Christol, at 362.

<sup>83</sup> Christol, at 362 (citing William F. Foster, *The Convention on International Liability for Damage Caused by Space Objects*, 10 CANADIAN Y.B. INT'L L. 137, 158 n. 65 (1972) [hereinafter Foster]).

<sup>84</sup> Yukon Lumber (U.K. vs U.S.), 6 R Int'l Arb Awards 17, 21 (1913).

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the *Chorzów Factory* case<sup>85</sup> and under Article VI of the OST. Simply put, there is no liability under general international law absent a wrongful act. Since Applicant committed no internationally wrongful act, it is not liable under general international law.

If this court finds that Respondent had acted wrongfully, it can be excused from its actions on the basis of *force majeure*. An act is not wrongful if it "is due to *force majeure*, that is, the occurrence of an irresistible force or of an unforeseen event, beyond the control of the State, making it materially impossible in the circumstances to perform the obligation." *Force majeure* is comprised of three elements, 87 each of which Respondent satisfies.

#### i) There was an irresistible force

First, there was an irresistible force.<sup>88</sup> The solar windstorm was a rare natural phenomenon, as confirmed by Mosolia, and was not predicted by Respondent.

#### ii) The irresistible force was beyond Respondent's control

Second, it must be beyond the control of Respondent. The solar windstorm rendered Lavotto-1 inoperable. Respondent took all steps within its capability to regain control of its satellite but was unable to do so because of the catastrophic damage caused by the solar windstorm. In fact, Respondent tried to both de-orbit its satellite and park it in a higher orbit as originally intended but failed to successfully accomplish either manoeuver because of the damage caused by the solar windstorm. This demonstrates that it could not control its space object after the solar windstorm and thus could not prevent any potential damage it may have posed.

## iii) The irresistible force made it impossible for Respondent to perform its obligations

Finally, the *force majeure* must make it materially impossible to perform the obligation. While the Respondent did not have any clear international obligation to de-orbit its derelict satellite or move it to a parking orbit, its decision to act in a humanitarian manner for the benefit of other States was hampered by the irresistible force of the solar windstorm. Therefore, Respondent would not be liable for any potential consequences or damages flowing from the loss of control caused by the solar windstorm.

<sup>85</sup> Case Concerning the Factory at Chorzów (F.R.G. v. Pol.), 1928 P.C.I.J., Ser. A, No. 17 (Sept. 13) [hereinafter Chorzow Factory].

<sup>86</sup> Articles on State Responsibility, art. 23(1).

<sup>87</sup> *Id.* at p. 76(2).

<sup>88</sup> JAMES CRAWFORD, THE INTERNATIONAL LAW COMMISSION'S ARTICLES ON STATE RESPONSIBILITY: INTRODUCTION, TEXT AND COMMENTARIES, (Cambridge: Cambridge University Press, 2002) at 170. (An irresistible force is characterized as "a constraint which the State was unable to avoid or oppose by its own means.")

## 2. Respondent is not liable for the loss of Couleur under Article 2 of the Articles on State Responsibility

An internationally wrongful act consists of a breach of an international obligation through an act or omission and an attribution of that breach to a State. For conduct to be attributable to a State, it must involve an act or omission by a person or group of people. The general principle is that "States can act only by and through their agents and representatives". The damage that occurred to Couleur is not attributable to Respondent or any of its agents or representatives and therefore Respondent did not commit an internationally wrongful act; the fact that Lavotto-1 is a Rastalian space object does not constitute a wrongful act attributable to Respondent.

## 3. Even if Respondent is liable, Applicant is precluded from recovering compensation as it violated Articles I, III and IX of the Outer Space Treaty

As stated above, Applicant violated Articles I, III and IX of the OST. As such, it is precluded from recovering compensation on the basis of *ex turpi causa non oritur actio*. 91

# III. Banché Is Liable under International Law for the Costs of Recovery of Couleur, the Rescue and Medical Expenses for Commander Borsch, the Costs of the Evacuation of Lake Taipo, and the Deaths of Both Mr. Thomas and Mr. Barton

Firstly, Applicant demanded the return of Couleur, thus they are liable for the costs of recovery under Article 5 of the Rescue Agreement. Secondly, Borsch landed in Rastalia intentionally, so Applicant is liable for the rescue and medical costs for Borsch under customary international law. Finally, Applicant is liable for the evacuation costs of Lake Taipo and the deaths of Thomas and Barton under Article II of the Liability Convention.

#### A. Applicant Is Liable for the Costs of Recovery of Couleur

After requesting the return of its space object, Couleur, Article 5 of the Rescue Agreement requires Applicant, as the launching authority, to bear "the expenses incurred in fulfilling obligations to recover and return a space object or its component parts." Applicant demanded the return of Couleur and Respondent recovered Couleur hours later, thus Applicant is liable for the costs incurred by Respondent.

<sup>89</sup> Articles on State Responsibility, art. 2.

<sup>90</sup> German Settlers in Poland, Advisory Opinion, 1923, P.C.I.J., Series B, No. 6 at 22.

<sup>91</sup> Gabicokovo-Nagymaros, at ¶133 (see note 93).

<sup>92</sup> Rescue Agreement, art. 5.5.

#### 1. Applicant is the launching authority

Applicant is the launching authority for Couleur under Article 6 of the Rescue Agreement.<sup>93</sup>

#### 2. Applicant demanded Couleur's return

Applicant formally demanded the return of Couleur on 6 January 2029.94

#### 3. Therefore, Banché must bear expenses incurred by Rastalia

The Rescue Agreement provides no time-table for the return of a space object by the Contracting Party to the launching authority. As no prompt return is required, Article 5 allows Respondent to demand an advanced payment<sup>95</sup> for recovery expenses and damage caused by Couleur before returning the spacecraft to Applicant.<sup>96</sup> This interpretation of Article 5 is supported by the substitution of "shall be borne by" for the words "shall be reimbursed by" during the drafting of the Rescue Agreement.<sup>97</sup> Respondent has complied with Paragraphs 2 and 3 of Article 5 of the Rescue Agreement to this point, so Applicant has an unconditional obligation to bear the expenses of the recovery of Couleur.

#### B. Banché Is Liable for the Rescue and Medical Expenses of Borsch under Customary International Law

Shortly after Couleur landed in Rastalia, Applicant demanded Respondent rescue Borsch, so Respondent expended significant resources in rescuing him and providing medical care. The Rescue Agreement is silent regarding the recoupment of rescue and medical expenses for personnel. This omission does not preclude recovery under other provisions of international law. Applicant's obligation to cover the rescue and medical expenses for Borsch arise under customary international law.

Customary international law and decisions of this Court relating to State responsibility culminated in the International Law Commission's Articles on Responsibility of States for Internationally Wrongful Acts, under which a State is internationally responsible for its wrongful acts. Should a State commit a wrongful act, it "is under obligation to make full reparation for the

<sup>93</sup> Compromis, ¶17.

<sup>94</sup> Id.

<sup>95</sup> Lachs, at p. 80.

<sup>96</sup> Cheng, Space Law, at 283.

<sup>97</sup> Travaux préparatoires to the Rescue Agreement, art. 5, U.N. Doc. A/AC. 105/C.2/SR.86 (14.12.67) reprinted in Cheng, Space Law, at 280-81.

<sup>98</sup> Compromis ¶18.

<sup>99</sup> There is no evidence or support in the *travaux préparatoires* to support an intention by the parties to preclude recovery. *Haya De La Torre Case* (Colombia v Peru), 1951 I.C.I. 4, 71 (June 13).

<sup>100</sup> Articles on State Responsibility, art. 1.

injury caused by the [internationally wrongful] act." <sup>101</sup> In order for an act to constitute an "internationally wrongful act" that triggers reparation, two elements must be satisfied: <sup>102</sup> first, the act must be attributable to the State, <sup>103</sup> and second, the act must "constitute a breach of an international obligation of the State." <sup>104</sup>

#### 1. Couleur's actions in outer space are attributable to Applicant

The actions and activities of a space object are attributable to its State. Additionally, actions of a person, authorized by a State to act on its behalf, are actions of that State under international law.<sup>105</sup> As discussed above, Applicant procured the launch of Couleur, and it launched from its territory. As such, Applicant is responsible for the actions of Couleur and Borsch.

## 2. Couleur's destruction of Lavotto-1 was a breach of Applicant's obligations under the Outer Space Treaty

As discussed above, Applicant's responsibility for the recovery and medical costs for Borsch flow from its breach of the OST. <sup>106</sup> Applicant's decision and actions leading to the destruction of Lavotto-1 was a violation of international law, thus making it obliged to make full reparation for the recovery and medical costs for Borsch. <sup>107</sup> Applicant's payment of reparation in the form of compensation would "as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed." <sup>108</sup> Had Applicant not acted illegally in destroying Lavotto-1, Borsch would not have landed in Rastalia and required Respondent to provide recovery and medical service. Applicant's payment of these costs are the only way to put Respondent back in the place that it would have been had Applicant not destroyed Lavotto-1, because Respondent has already expended the resources for recovery and medical services.

## C. Banché Is Liable for the Costs of the Evacuation of Lake Taipo and the Deaths of Thomas and Barton under the Liability Convention

Article II establishes absolute liability, so Applicant need only demonstrate causation attributable to Couleur and legally cognizable damage that flowed

<sup>101</sup> Id., art. 31. See also Chorzów Factory; Congo, at ¶257 and 259.

<sup>102</sup> Articles on State Responsibility, art. 2.

<sup>103</sup> Id., art. 2(a).

<sup>104</sup> *Id.*, art. 2(b).

<sup>105</sup> *Id.*, art 5.

<sup>106</sup> Id., art 1.

<sup>107</sup> Id., art 31.

<sup>108</sup> Chorzów Factory, p. 47.

directly or immediately from the operation of Couleur.<sup>109</sup> As the launching State of Couleur, Applicant is liable for the compensable damage to the persons and property of Respondent.

#### 1. Lake Taipo evacuation costs constitute compensable damage

As used in Article I(a) of the Liability Convention, damage means "loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical." Even though evacuation costs are not specifically listed in Article I(a), the victim-oriented nature of the treaty supports its inclusion. 110

Respondent took the necessary action to prevent or lessen the possibility that Couleur and its suspected nuclear material would cause harm. The evacuation costs can be characterized as indirect or consequential damages and are similar to Canada's claim made under the Liability Convention in the *Cosmos 954* incident. In that case, Canada's claim included costs borne from its attempt to mitigate probable damages. The *Cosmos 954* incident was settled under the Liability Convention, as the claim was made in accordance with its provision.

Rastalia believed nuclear material was on board Couleur when it unexpectedly crashed in its territory, so an evacuation was ordered to mitigate what was believed to be imminent and devastating harm.<sup>113</sup> That no nuclear leak was detected at the crash site is immaterial, because Rastalia had a duty to mitigate expected harm as expressed by the ICJ in the *Gabčikovo-Nagymaros Project* case.<sup>114</sup> An injured State that fails to take the necessary steps to mitigate damage is precluded from recovery for damage that might have been avoided.<sup>115</sup>

While indirect damage was not specifically included in the definition of damage, it was generally accepted by the delegates as an instance of proximate or adequate causality. General international law generally

<sup>109</sup> Canada, Department of External Affairs, Cosmos Case, Canada: claim against the Union of Soviet Socialist Republics for damage caused by Soviet Cosmos 954 18 I.L.M. (1979) 899, at 906. *Travaux préparatoires* to the Liability Convention, art. 4, U.N. Doc. A/AC/105/C.2/L.7 reprinted in NANDASIRI JASENTULIYANA & ROY LEE, MANUAL ON SPACE LAW: VOLUME I (1979), p. 249-253 [hereinafter Jasentuliyana, *Manual*]; Christol, at 359.

<sup>110</sup> See Lachs, at 115.

<sup>111</sup> Christol, at 362.

<sup>112</sup> *Id*.

<sup>113</sup> Compromis, ¶18.

<sup>114</sup> Gabčikovo-Nagymaros, ¶80.

<sup>115</sup> Id.

<sup>116</sup> See Travaux Préparatoires to the Liability Convention, U.N. Doc. AC. 105/C.2/L.61 (Jun. 23, 1969) compiled in Jasentuliyana, Manual at 354; see also Cheng, Space Law at 323.

adopts this position and is supported by eminent publicists.<sup>117</sup> As a result, the Lake Taipo evacuation costs are recoverable damage under the Liability Convention if caused by Couleur's landing.

#### 2. The deaths of Thomas and Barton constitute damage

Since the definition of damage under Article II includes loss of life, the deaths of Thomas and Barton are recoverable damage.

#### 3. The evacuation of Lake Taipo was "caused" by Applicant

Article II also specifies that the damage should be "on the surface of the Earth or to aircraft in flight." The Applicant's use of a laser in outer space and its failure to inform other States, particularly Respondent, of its use created reasonable concern that the unexpected and potentially catastrophic landing of Couleur would lead to nuclear fallout.<sup>118</sup> There is a direct causal link between Couleur's unexpected landing in Rastalia with nuclear material potentially onboard and the evacuation of the area surrounding Lake Taipo.

#### 4. The deaths of Barton and Thomas were "caused" by Applicant

The detached piece of spacecraft shell directly caused the death of Mr. Thomas when it hit a campsite near Lake Taipo, 119 thus there is a direct causal link between the piece of detached spacecraft slamming into a building on the surface of the Earth and Mr. Thomas being killed by the impact; however, this direct cause is not required.

While direct physical impact is the most straightforward manner in which damage can result, "physical impact with a space object" is not required. 
Mr. Barton was not hit by the detached piece of spacecraft, but was on "the surface of the Earth" when he witnessed Couleur unexpectedly fly overhead. 
This observation caused Mr. Barton to suffer a heart attack and die. 
The Liability Convention does not require a direct, terrestrial impact with the victim when the damage claimed is on the Earth's surface. 
For example, emanations of nuclear fallout would be a cognizable damage, certainly extending beyond damage of direct impact of a space object. 
As long as there is some "impairment of health," the Convention

<sup>117</sup> Administrative Decision No. II (U.S. v. Ger.), 7 R.I.A.A. 23, 29-30 (1923). ("It does not matter whether the loss be directly or indirectly sustained so long as there is a clear unbroken connection between the act of the state and the loss of the injured party").

<sup>118</sup> Compromis, ¶17.

<sup>119</sup> Compromis, ¶17.

<sup>120</sup> Christol at 360, citing Foster at 155.

<sup>121</sup> Compromis, ¶19.

<sup>122</sup> Id.

<sup>123</sup> See Christol, at 359-60; see also Kayser, at 47-48.

<sup>124</sup> Id.

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covers all injuries no matter if there was "physical impact with a space object," 125

The cause-in-fact element is satisfied in this case. But for the actions of Banché through Couleur, i.e., unexpectedly landing near Lake Taipo on 4 January 2029, an evacuation would not have been necessary and Thomas and Barton would not have died. The deaths of Barton and Thomas were natural and probable results of Couleur unexpectedly landing near Lake Taipo.

#### 5. Banché is not exonerated from liability

Applicant cannot be exonerated from liability pursuant to Article VI of the Liability Convention, which states that the launching authority may be exonerated from absolute liability if "the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage...." Applicant may only invoke this provision if its actions did not violate international law.

Respondent's actions do not constitute gross negligence, because the actions were not willful or reckless. As a result, Applicant cannot be exonerated. On the other hand, if Respondent's actions were willful or reckless, as earlier noted, Applicant's actions were not in compliance with international law.

The space law treaties do not define gross negligence, but in the *travaux* préparatoires to the Liability Convention, delegates confirmed that gross negligence was similar to a "willful or reckless act or omission" and meant actions more serious than mere negligence.<sup>126</sup> Domestic jurisdictions interpret gross negligence in a related manner.<sup>127</sup>

First, Respondent's actions cannot be characterized as gross negligence. Respondent's actions in launching and ultimately failing to de-orbit Lavotto-1 cannot be considered willful misconduct or reckless. Prior to launch, Respondent installed technology that allowed for de-orbit at end-of-life. Unfortunately, Lavotto-1 was made inoperable by a rare solar windstorm which caused Respondent to lose control of the satellite.

<sup>125</sup> Christol, at 360.

<sup>126</sup> Travaux préparatoires to the Liability Convention, U.N. Doc. A/AC/105/C.2/SR.50 (1965), compiled in Jasentuliyana, Manual, at 471 (statement by U.S. Amb. Sohier). Travaux préparatoires to the Liability Convention, U.N. Doc. A/AC/105/C.2/SR.77 (1966) compiled in Jasentuliyana, Manual, at 487 (statement by Indian Amb. Haraszi).

<sup>127</sup> Jean Limpens et al, *Liability for One's Own Act, in* VOL XI (TORTS) INTERNATIONAL ENCYCLOPEDIA OF COMPARATIVE LAW 65, 70 (Andres Tunc et al eds., 1983). (Although no distinct definition can be deduced from civil and common law jurisdictions, both systems afford a degree of severity of the conduct necessary to meet the gross negligence standard.)

<sup>128</sup> Compromis, ¶7.

Respondent's response to the inoperability of Lavotto-1 was not reckless in immediately announcing to the world that it lost control of the satellite and that there was suspected danger to the Mira space station. Respondent had an obligation to inform (duty to inform) Applicant of potential harm resulting from Lavotto-1. 129 Indeed, Respondent was in compliance with this obligation by utilizing diplomatic channels with Applicant to protect the Mira space station. 130

Second, Applicant cannot be exonerated, because the damage claimed is a result of Applicant's internationally wrongful act.<sup>131</sup> Even if the Court accepts that Applicant had a legal right to unilaterally remove Lavotto-1 from orbit for the purpose of mitigating harm, the manner in which it did so, insofar as it used the GODA laser system, without any consultation or diplomatic announcement was in violation of international law.<sup>132</sup> Although Applicant was involved in diplomatic talks with Respondent, it never sought the cooperation of Respondent in its plan to use this weapon.<sup>133</sup> As a result of this internationally wrongful act, the Applicant's action cannot be exonerated even if Respondent's actions are seen as contributory.

#### **Submissions to the Court**

For the foregoing reasons, the Republic of Rastalia respectfully requests the Court to adjudge and declare that:

- a. Rastalia acted in conformity with international law by refusing to return Couleur and Commander Borsch to Banché and refusing the earlier return of Ms. Paula to Banché.
- b. Rastalia is not liable under international law for the damage to Couleur.
- c. Banché is liable under international law for the costs of recovery of Couleur, the rescue and medical expenses for Commander Borsch, the costs of the evacuation of Lake Taipo, and the deaths of both Mr. Thomas and Mr. Barton.

<sup>129</sup> See, for example, article 8 of the International Convention for the Prevention of Pollution from Ships, 1340 UNTS 184 (1973); Annex 6 of the Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea, 1507 UNTS 167 (1992); and article 9 of the Barcelona Convention for the Protection of the Mediterranean Sea, Protocol of Co-operation in Case of Emergency, 1102 UNTS 27 (1976). (The customary nature of the duty to inform emerges from both State practice and opinio juris (the two substantial elements of custom). This obligation was established in Corfu Channel and later confirmed as binding by the international community by the signing of several international conventions crystalizing said duty.)

<sup>130</sup> Compromis, ¶11.

<sup>131</sup> Liability Convention, art. VI.2.

<sup>132</sup> OST, art. IX.

<sup>133</sup> Id., art. IX.

